

3.4 BIOLOGICAL RESOURCES

This section discusses biological resources that may be affected by the proposed project. The following identifies the existing biological resources in the project area, analyzes potential impacts due to the implementation of the project, and recommends mitigation measures to avoid or reduce potential impacts of the proposed project and alternatives. This analysis contains the interim results of the rare plant surveys, Quino checkerspot butterfly (QCB) survey, and Golden Eagle survey data for spring 2010. A detailed list of the completed surveys and dates can be found in Draft Biological Technical Report (BTR), included as Appendix H of this environmental document. These surveys are ongoing and the final results will be incorporated into the project upon completion.

The following studies have been completed for the proposed project;

- *Draft Jurisdictional Wetland Delineation Report*, HDR Engineering, Inc., August 2010, included as Appendix G of this environmental document.
- *Draft Biological Technical Report*, HDR Engineering, Inc., September 2010, included as Appendix H of this environmental document.

The following documents have been prepared for the proposed project and are included as appendices of the Draft BTR:

- *Summary Abandoned Mines as Potential Bat Roosts at the Proposed Tule Wind Project San Diego, California*. Western EcoSystems Technology, Inc. April 21, 2010. BTR Appendix E.
- *Bat Acoustic Studies for the Tule Wind Resource Area*, Western EcoSystems Technology, Inc., December 21, 2009. BTR Appendix E.
- *2005-2006 Avian Survey Tule Wind Resource Area*, Tetra Tech, February 2008. BTR Appendix F.
- *2007-2008 Avian Survey Tule Wind Resource Area*, Tetra Tech, January 2009. BTR Appendix F.
- *Quino Checkerspot Butterfly (QCB) Habitat Assessment for the Tule Wind Project*, Dudek, June 2008. BTR Appendix G.
- *Quino Checkerspot Butterfly (QCB) Focused Survey for the Tule Wind Project*, Dudek, June 2009. BTR Appendix G.
- Record of Conversation, *Presence of Arroyo Toads at Tule Project, Iberdrola*. September 2008. BTR Appendix L.
- Record of Conversation, *Avian Studies at Tule Project Site – Data Adequacy*. Tetra Tech, September 16, 2008. BTR Appendix L.
- *Golden Eagle Aerial Surveys Surrounding Tule Wind Energy Development in San Diego County, California*. Wildlife Research Institute, Inc. June 11, 2010. BTR Appendix M.
- *Golden Eagle Information Tule Wind Project*. WEST, Inc., June 2010. BTR Appendix M.
- *Granite Magic Gecko/Barefoot Banded Gecko Habitat Assessment Letter*. Eric Dugan, June 10, 2010. BTR Appendix N.

3.4.1 Affected Environment/Environmental Setting

Iberdrola Renewables, Inc. (IBR) is requesting a right-of-way (ROW) for a term of no less than 30 years from the Bureau of Land Management (BLM) for the development of a wind project. Iberdrola Renewables has also applied to lease parcels administered by the California State Lands Commission. Other components of the project are proposed to be located on Rough Acres Ranch, a privately owned property located in the southern half of McCain Valley, under the jurisdiction of the County of San Diego and Tribal lands including the Ewiiapaayp Indian reservation. The Manzanita and Campo Indian Reservations will be used for access only.

Iberdrola Renewables was issued a temporary ROW (Serial Number CA-45248) by the BLM for wind testing and monitoring in 2004, which was updated in 2010. The overall project area is approximately 15,390 acres, with the proposed project footprint (impact extent) occurring on approximately 773 acres (229.9 temporary and 542.7 permanent). As part of habitat assessment for the proposed project, a 4,952-acre survey corridor was established which includes the proposed project footprint, five alternatives, and buffer area around each feature. The total project impact would affect approximately 15.6 percent (4.6% temporary and 11% permanent impacts) of the total area surveyed (survey corridor) and approximately 5 percent of the total project area. Within the approximate 4,952-acre survey corridor, the proposed project construction footprint (impact extent) would occur on approximately 772.7 acres with the deviant substation and 765 acres for the proposed substation. The total impact would affect approximately 15.6 percent (4.6 percent temporary and 11 percent permanent impacts) of the total area surveyed and less than 5 percent of the total project area.

The total construction footprint for the project will impact a maximum of 773 acres to include 550.4 acres on BLM lands, 89.9 acres on Tribal lands, 39.2 acres on state lands, and 93.23 acres on private land. The portions of the project that are on private lands are subject to a Major Use Permit (MUP) through the County of San Diego. An MUP was submitted to the County of San Diego in October 2009 and is pending approval. Additional access would be required through the Manzanita and Campo Indian Reservations. Access through these areas for project purpose is currently pending.

The project proposes the following components, including the disturbance areas, which may impact biological resources: (1) 200-foot radius for each turbine location; (2) a 24-foot wide corridor to erect the power lines and pole foundations; (3) a 50-foot by 150-foot rectangle for each 138 kV transmission line pole; (4) 16- to 20-foot (permanent) access road along linear turbine strings; (5) improvements to existing roadways (20 to 36-feet); (6) 10 acres for the placement of the O&M/Substation facility; and (7) 1,600 square feet for two meteorological towers and a SODAR unit.

Various field surveys have been conducted for the proposed project and include: general vegetation community classification and mapping, jurisdictional wetland and waterway delineation, bat (chiropteran) and avian surveys, a Quino checkerspot butterfly (QCB) habitat assessment and survey, preliminary rare plant focused surveys, and Golden Eagle survey. The focused rare plant surveys have not been completed to date. Initial results and preliminary analysis of these three particular surveys are discussed in this section and included in the Draft Biological Technical Report (BTR).

The majority of the proposed project lies within the BLM designated McCain Valley Resource Conservation Area (RCA) east of the Anza Borrego Desert State Park. McCain Valley lies within the Peninsular Mountain Ranges and is bordered by Thing Valley to the west. The western edge of the In-Ko-Pah Mountains is within the project area and extends to the east beyond the project area. The project area is characterized by chaparral- and scrub-covered hills with large granitic rock formations found throughout most of the area.

Limitations common to all surveys include limited access to areas that are located primarily on private parcels along Ribbonwood Road, Old Highway 80, and McCain Valley Road and restricted access to Manzanita and Campo Indian Reservations. Approximately one percent of the project footprint supports land use in the form of rural residential development, agriculture, heavily disturbed land, roads, and non-vegetated channels. Approximately 20 acres of private lands within the proposed construction project footprint remain unsurveyed due to access restrictions, and are scheduled to be surveyed in October. However, given these areas are primarily access roads that may or may not be utilized and because they will require minimal improvements, activities resulting in habitat impacts are not anticipated.

Land Use

The majority of the project area is located within BLM lands and is managed to provide uses including recreation, wildlife conservation, cattle grazing, and protection of archaeological resources. Recreational activity in the area includes camping, hunting, hiking, horseback riding, backpacking, mountain biking, wildlife viewing, photography, and off-highway vehicle (OHV) use. The McCain Valley Resource Conservation Area encompasses 38,692 acres of the In-Ko-Pah Mountains and includes the Lark Canyon Campground and OHV area, Cottonwood Campground, and the Carrizo Overlook (BLM 2009b). The BLM and Tribal portions of the project are subject to the National Environmental Policy Act (NEPA). Additionally, the BLM designation of a resource conservation area is separate and unrelated to the County of San Diego designation of a Resource Conservation Area (RCA). The County of San Diego has not designated any portion of this project an RCA.

Components of the proposed project are also located on privately held lands which fall within the draft East County Multiple Species Conservation Program Plan and the Ewiiapaayp Indian Reservation as well as the Manzanita and Campo Indian Reservations (access only). The community of Boulevard is located south of I-8 along Old Highway 80. Land use on privately held properties north of Interstate 8 (I-8) and in the general vicinity surrounding the project area consists of small-scale agriculture operations (ranching, grazing, and dry land farming) and rural residences. Land use in the construction access ROW along Old Highway 80 and Ribbonwood Road varies, but is primarily low density residences and commercial businesses. Land uses on portions of the Indian reservations within the proposed project area are minimal. Existing land use on the Ewiiapaayp Reservation is primarily undeveloped, open space, with the exception of the existing Kumeyaay Wind Farm located on the Campo Reservation and an OHV trail system on the Manzanita Reservation. Portions of the proposed project also occur on undeveloped lands and the McCain Valley Conservation Camp (an adult correctional and rehabilitation facility), located on McCain Valley Road.

Additional surrounding land use designations include; the Cleveland National Forest to the west, Sawtooth Mountain Wilderness to the north, In-Ko-Pah Mountains Area of Critical Environmental Concern (ACEC) to the east, I-8 and rural residential areas to the south, and La Posta and Campo Indian reservations. Carrizo Gorge Wilderness Area is located to the east, of which includes designated Areas of Environmental Concern (AECs), Wilderness Areas, and portions are designated as Peninsular Bighorn Sheep Critical Habitat.

Hydrology

The Tecate Divide separates two main watersheds; the eastern drainages flows into the Salton Trough, located within the Anza Borrego Hydrological unit of the Salton Sea watershed, which the majority of the project area is located, and the western drainages are part of the Tijuana River watershed flowing into Mexico and eventually back into the U.S., the Tijuana Estuary, and the Pacific Ocean. Tule Creek is the primary drainage feature in the project vicinity and drains the central portion of McCain Valley, towards

the southeast. Lark Canyon Creek, Walker Creek, Canebrake Wash, Bow Willow Creek, Carrizo Creek, and La Posta Creek, are the other main drainages in the proposed project survey corridor. In general, these drainages are ephemeral water courses that are fed by numerous smaller ephemeral tributaries.

Topography, Soils, and Climatic Conditions

Within the project survey corridor, elevation ranges from about 3,600 feet above mean sea level (AMSL) along Old Highway 80 to about 5,600 feet AMSL along the ridge in the northwestern portion of the project. This region consists of large granitic rock outcrops interspersed with marbles, slates, schist, quartzite, and gneiss. The soils in the project survey area are primarily sandy loam soils, with some alluvial soils and igneous rock soils. Further detailed soil descriptions can be found in the Geologic, Soils and Mineral Section 3.8 of this AED. Most precipitation is received from December to April. Winter temperatures range from below 32 degrees to 70 degrees Fahrenheit (°F), with occasional snowfalls. Summer temperatures range from 40 degrees to 95 °F.

Biological Resources

The proposed project area lies in a zone of transition from chaparral vegetation on the east slope of the mountains in the west, to the Colorado Desert in the east. This transition from chaparral to desert has produced a mosaic of communities within the area. The vegetative pattern is more open with greater numbers of desert species along the southern and eastern portions of the survey corridor, becoming denser forms of chaparral in the north and west.

During the surveys to date, 297 species of plants were identified on-site; 264 of these species are California native plants and 33 are non-native, or exotic. The majority of the exotic species are mustards, filaree and bromes, and are mostly found in previously disturbed areas. Aside from these exotic species, the majority of the proposed site has maintained its natural integrity, with healthy vegetation populations. Floristic plant surveys are being conducted during the vegetation surveys, due to the time of the year. Three phases of surveys were conducted in the survey corridor in 2010; one complete survey during the early blooming season (March 29-April 30), one complete survey during the late blooming season (May 16-June 7), and one focused survey for Tecate tarplant in October 2010. A detailed list of the surveys conducted to date is listed in Table S-1, of the Draft BTR (Appendix H).

An abundance of high-quality habitat for wildlife currently exists in and around the proposed project area. The thousands of acres of undeveloped open space that surround the McCain Valley BLM-designated RCA have high connectivity to neighboring protected, undeveloped lands. This vast area is capable of supporting an abundance of wildlife species, including large animals on a regional scale. Sensitive as well as common wildlife species of the Peninsular Ranges would be expected to occur here. Habitat within the project area supports typical animals expected in the region.

3.4.1.1 Vegetation Communities

Approximately 96 percent of the proposed project footprint provides wildlife habitat in the form of native and non-native vegetation. Vegetation communities within the survey corridor include: big sagebrush scrub, chamise chaparral, dense coast live oak woodland, montane buckwheat scrub, mule fat scrub, non-native grassland, northern mixed chaparral, open coast live oak woodland, redshank chaparral, scrub oak chaparral, semi-desert chaparral, southern north slope chaparral, southern riparian woodland, southern willow scrub, upper Sonoran manzanita chaparral, upper Sonoran sub-shrub scrub. The remaining four percent of the project footprint supports land use in the form of rural residential development, agriculture, heavily disturbed land, roads, and non-vegetated channels. Approximately 14 acres (.03%) of

private lands within the proposed construction project footprint remain un-surveyed due to access restrictions. Given these areas are primarily existing rural development and access roads that may or may not require minimal improvements, utilization of existing development and access roads will likely not result in impacts to habitat. Due to the high number of maps required for the project area, biological maps are located in Appendix H of the Draft BTR (Appendix H).

For those lands that fall under the County of San Diego Biological Mitigation Ordinance, sensitive vegetation communities and habitats permanently disturbed will require per acre compensatory mitigation. The County of San Diego BMO identifies a method of determining resource sensitivity (County of San Diego 2004) in which vegetation communities have been divided into habitats and tiers of sensitivity based on rarity and ecological importance: Tier I (rare habitats); Tier II (uncommon habitats); Tier III (common habitats); and Tier IV (other communities). Mitigation proposed in the BTR is based on the County of San Diego Guidelines for Determining Significance for Biological Resources (CGDS) and the County of San Diego BMO requirements, and applies to those portions of the project subject to County standards for mitigation. The draft ECMSCP proposed for the region where the project occurs has not yet been completed. However, as a proposed HCP/NCCP and component of the County of San Diego biological resources management program, it can be expected to use a similar rating system as other HCP/NCCPs within this framework. Regardless of the sensitivity tier, all habitats supporting listed, narrow endemic or draft ECMSCP-covered species are considered sensitive biological resources.

The ecological importance of vegetation communities within the proposed project area have been identified as Tier I, II, III or IV based on comparable communities in the South San Diego County MSCP. The majority of natural vegetation communities in the proposed project area are considered sensitive with the exception of those that occur in agriculture, developed, or disturbed habitat. These vegetation communities are not sensitive due to human disturbance and typically support little to no wildlife diversity or special status species.

HDR conducted vegetation community classification and mapping surveys for the survey corridor in November and December of 2009. Three phases of surveys are planned for the survey corridor in 2010; two complete surveys, one during the early season (March 29-April 30) and one during the late season (May 16-June 7), and one scheduled focused survey for Tecate tarplant in October 2010.

Overall the project area supports 20 different types of vegetation communities. ‘Unsurveyed areas’ refer to a portion of the survey corridor (approximately 398 acres) that was not surveyed due to private property access issues. The unsurveyed areas are located primarily on private parcels along Ribbonwood Road, Old Highway 80, and McCain Valley Road, in addition to areas located on Manzanita and Campo Indian Reservations. Unsurveyed areas were “surveyed” from the public right-of-way or from adjacent parcels where access was granted, to the best extent possible. Surveys are scheduled for unsurveyed areas in October. Vegetation community descriptions below are based on Holland’s descriptions of the terrestrial natural communities of California (1986), further refined by Oberbauer (1996). A summary of the vegetation acreages and habitat tiers located within the project area are shown in **Table 3.4-1**.

Big Sagebrush Scrub (35210)

Big sagebrush scrub is a vegetation community of mostly soft-woody shrubs, 1.6 to 6.6 feet tall, dominated by big sagebrush. In the survey corridor, big sagebrush scrub is characterized as being a moderately open shrubland consisting predominantly of big sagebrush. Other species occurring within big sagebrush scrub include Wright’s buckwheat, flat-topped buckwheat, and native and non-native grasses.

3.4 Biological Resources

Table 3.4-1. Vegetation Communities in the Proposed Project Survey Corridor

Vegetation Community (Acronym and Holland Code)	Vegetation Alliance ²	Habitat Tier ¹	Acres
Big sagebrush scrub (BSS, 35210)	Basin Big Sagebrush Shrubland (A.829)	II	149.27
Chamise chaparral (CC, 37200)	<i>Adenostoma fasciculatum</i> Shrubland Alliance (A.755)	III	178.32
Dense coast live oak woodland (cCLOW, 71162)	Coast Live Oak Woodland Alliance (A.589)	I	12.74
Developed (Dev, 12000)	N/A	N/A	43.74
Disturbed habitat (D, 11300)	N/A	IV	126.50
Field/pasture, agriculture (Ag, 18310)	N/A	IV	49.72
Montane buckwheat scrub (MBS, 37K00)	<i>Eriogonum fasciculatum</i> Shrubland Alliance (A868)	II	170.92
Mule fat scrub (MFS, 63320)	<i>Baccharis salicifolia</i> Intermittently Flooded Shrub Land Alliance (A933)	I	0.28
Non-native grassland (NNG, 42200)	<i>Bromus (diandrus, hordeaceus, madritensis)</i> Herbaceous Alliance (A1813)	III	59.66
Non-vegetated channel (UC, 64200)	N/A	N/A	3.92
Northern mixed chaparral (NMC, 37130)	<i>Quercus berberidifolia</i> Shrubland Alliance (A2673)	III	477.01
Open coast live oak woodland (oCLOW, 71161)	Coast Live Oak Woodland Alliance (A.589)	I	50.31
Redshank chaparral (RS, 37300)	<i>Adenostoma sparsifolium</i> Shrubland Alliance (A.756)	III	112.80
Scrub oak chaparral (SOC, 37900)	<i>Quercus berberidifolia</i> Shrubland Alliance (A2673)	III	546.98
Semi-desert chaparral (SDC, 37400)	<i>Quercus berberidifolia</i> Shrubland Alliance (A2673)	III	1688.26
Southern north slope chaparral (SNSC, 37E00)	<i>Quercus berberidifolia</i> Shrubland Alliance (A2673)	III	52.69
Southern riparian woodland (SRW, 62500)	N/A	I	1.22
Southern willow scrub (SWS, 63320)	<i>Salix lasiolepis</i> Temporarily Flooded Shrubland Alliance (A977)	I	1.78
Unsurveyed areas	N/A	N/A	397.52
Upper Sonoran manzanita chaparral (USMC, 37B00)	N/A	III	220.61
Upper Sonoran subshrub scrub (USSS, 39000)	<i>Eriogonum fasciculatum</i> Shrubland Alliance (A868)	III	607.89
Total Acres			4,952.12

Source: HDR Engineering, Inc., Draft HDR Biological Technical Report, September 2010

¹ Habitat Tiers are based on the Draft East County MSCP and have not yet been adopted.

² Vegetation alliances have been taken from NatureServe 2010.

N/A = Not applicable

In San Diego County, this community often occurs in alluvial washes along dry margins of high desert and montane valleys (Oberbauer et al. 2008; Holland 1986). Big sagebrush scrub also occurs in or adjacent to drainages and valley bottoms in the sandy transition to chaparral. Occasionally, this community occurs in conjunction with coast live oak woodland (71160). In the southern portions of McCain Valley and in areas west of McCain Valley Road, this community often shows evidence of disturbance from grazing or recreational OHV use. Although relatively common in the survey corridor, this is considered an uncommon upland habitat in much of the county and is similar to San Diego County MSCP communities within Tier II.

Chamise Chaparral (37200)

Chamise chaparral is typically a 3.5 to 10 feet tall chaparral community, strongly dominated by chamise that has adapted to repeated fires by stump sprouting. Mature stands are densely interwoven with little herbaceous understory, and associated species contribute little cover (Oberbauer et al. 2008; Holland 1986). Within the survey corridor, chamise chaparral varies from approximately 50 percent to nearly 100 percent chamise cover, with a sparse herbaceous layer of annual grasses and herbs. Other woody shrubs present may include cupleaf ceanothus, sugar bush, and oak species.

In San Diego County, chamise chaparral is the predominant chaparral type (Oberbauer et al. 2008). In the survey corridor, this vegetation community could further be defined as granitic chamise chaparral (37210) due to the prevalence of granitic soils. This common upland habitat is similar to San Diego County MSCP communities within Tier III.

Coast Live Oak Woodland (71160)

Coast live oak woodland is an evergreen woodland dominated by coast live oak. The understory is typically made up of non-native grasslands or big basin sage scrub and the community often intergrades with mixed chaparral (Oberbauer et al. 2008; Holland 1986). Within McCain Valley, it occurs as open canopy woodland in valley bottoms, along drainage courses, and at the bases of steep slopes and large rock outcrops. In the survey corridor, coast live oak woodlands are found within all vegetation communities where there is sufficient moisture. Coast live oak is the dominant overstory plant, but it occasionally includes canyon live oak or other oak species. Occasionally, small open stands of coast live oak are co-dominant with scrub oak chaparral. A variety of associate species can dominate the understory and adjacent habitat. Scrub oak species, big sagebrush, chamise, ceanothus, manzanita, flat-topped buckwheat, and annual grasses all occur as understory components. Coast live oak woodlands also occur with development and in grazed or otherwise disturbed areas. As with the scrub oaks, hybridization among coast live oak and black oak were observed, resulting in the hybrids *Q x ganderi* and/or *Q. x morehus*.

Open coast live oak woodland (71161) is a subtype of coast live oak woodland with a canopy cover less than 50 percent that occurs on the ecological margin of denser woodland (Oberbauer et al. 2008). In San Diego, this community occurs in drainages along desert margins. On the ridges, hills, and slopes west of McCain Valley, small localized open live oak woodlands intergraded with scrub oak chaparral and are highly variable and often shrubby. Dense coast live oak woodland (71162) is a subtype of coast live oak woodland with a canopy cover between 50 and 75 percent, which mostly occurs at the narrowing of valley floodplains (Oberbauer et al. 2008). This community occurs throughout the foothills and mountain regions of San Diego County.

Dense coast live woodland is found in the proposed project area on valley bottoms where the live oak woodlands tend to be more expansive, with larger trees and sparser understory. Within the San Diego

County MSCP communities coast live oak woodland is a sensitive and protected resource, and is considered Tier I habitat.

Developed (12000)

Developed land is comprised of areas of intensive use with much of the land constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported (Oberbauer et al. 2008). Developed land is highly modified and characterized by permanent or semi-permanent structures, pavement, or unvegetated areas.

Within the survey corridor, developed areas are comprised of paved roadways, man-made structures, adjacent lands that are unvegetated, or landscapes with a variety of ornamental (typically non-native/exotic) plants. Areas mapped as “Landscape” fall under this category. This community is not listed in the San Diego County MSCP.

Disturbed Habitat (11300)

Disturbed habitat is primarily used to identify areas of severe impacts to natural communities to the extent where it is no longer sustaining or functioning naturally (Oberbauer et al. 2008). These areas have been previously physically disturbed, but continue to retain a soil substrate. Disturbed areas either do not support any plant species or contain sparse, predominantly nonnative weedy species. This is not a natural community and generally does not provide habitat for wildlife or sensitive species.

Disturbed habitat in the proposed project area consists of off-road vehicle trails, unpaved roads, and areas that have been graded, repeatedly cleared, or experienced repeated use that prevents natural revegetation. Within the San Diego County MSCP communities, this is Tier IV habitat.

Field/Pasture, Agriculture (18310)

Lands that support an active agricultural operation may be classified as agriculture (Oberbauer et al. 2008). In general, grading, fertilizer application, and irrigation have converted these areas to a completely different community type than what was originally present. Agriculture can also include ordinary pasture maintenance and renovation and dry land farming operations consistent with rangeland management and soil disturbance activities (Holland 1986). Agriculture is generally poor habitat for native plant species. Agriculture in the proposed project area mostly involves dry land farming and/or livestock grazing. This field/pasture type of extensive agriculture vegetation is characterized by nonnative grasses, including bromes and wild barley species, and nonnative herbaceous species, including tumble mustard and red-stemmed filaree. Agricultural land left fallow may revert to non-native grassland habitat (Holland 1986). Within the San Diego County MSCP Communities, this is Tier IV habitat.

Montane Buckwheat Scrub (37K00)

Montane buckwheat scrub can be a nearly monoculture vegetation community that often occurs in disturbed areas. At lower elevations in San Diego County this community is often identified as flat-topped buckwheat scrub (32800) (Oberbauer et al. 2008). Within the proposed project area this community is dominated exclusively by flat-topped buckwheat and Wright’s buckwheat, with minimal presence of other species. In low lying areas of the proposed project, montane buckwheat scrub communities are characterized by dominance of flat-topped buckwheat; with increasing percentages of Wright’s buckwheat as elevation increases. Other species that may be present include occasional annual brome grasses, fescue, filaree, deerweed, slender buckwheat, and shiny-leaf yerba santa. Montane buckwheat scrub can be distinguished from upper Sonoran subshrub scrub (39000) communities in the

proposed project area by an absence of other low, soft-wooded shrub species, and by general evidence of recurring disturbance. It is sometimes associated with big sagebrush scrub (35210).

In McCain Valley, montane buckwheat scrub occurs in areas that are subject to periodic disturbance, such as along roadsides and areas that receive heavy grazing. Where it occurs away from grazing and roadside disturbances within the survey corridor, montane buckwheat scrub is generally restricted to small areas of well drained, deep granitic soils where it is typically interspersed within chaparral or desert transition scrub. In these areas it is often located in depressions and shallow swales interspersed within chaparral and desert transition scrub. In the swales and ridges west of McCain Valley Road, this vegetation community is distinctive because of the abundance of Wright's buckwheat. This habitat is similar to San Diego County MSCP communities within Tier II, although it does not have as much implication as habitat for sensitive species as similar habitats (i.e. flat flat-topped buckwheat scrub) do in coastal regions.

Mule Fat Scrub (63320)

Mule fat scrub is a depauperate, tall, herbaceous riparian scrub strongly dominated by mule fat (Oberbauer et al. 2008).

Within the survey corridor, this community occurs in one location in the southwestern portion of Rough Acres Ranch. As with most riparian communities, this habitat is considered rare and is similar to San Diego County MSCP communities within Tier I.

Non-native Grassland (or Annual Grassland) (42200)

Non-native grassland (or annual grassland) is a community characterized by a dense to sparse cover of annual grasses and associated with numerous native and non-native herbaceous species. In San Diego County, the presence of wild oats, filaree, wild mustard, and bromes are common indicators (Oberbauer et al. 2008). Nonnative grassland is dominated by exotic grasses with variable presence of remnant native species, and can include habitat that has been subject to ground disturbing activities, grazed, or burned. Common species include foxtail brome, cheat grass, wild oat, stork's bill, fescue, mustards, woollystar, tocalote thistle, and suncup.

This vegetation community occurs in association with disturbed areas throughout Rough Acres Ranch and nearby private properties, and adjacent pastures and fields. Non-native grassland within the proposed project area includes grazing land that continues to retain the biological value of grassland and does not meet the agriculture vegetation classification. This common upland habitat is similar to San Diego County MSCP communities within Tier III.

Non-Vegetated Channel (64200)

Non-vegetated channel is a sandy, gravelly or rocky channel that remains unvegetated on a relatively permanent basis (Oberbauer et al. 2008). Vegetation growth is inhibited to less than 10 percent cover by water lines. Within the proposed project area this classification applies to unvegetated washes and channels. All drainages within the project area are subject to multiple regulations within local, state and federal jurisdictions. This community is not listed in the San Diego County MSCP.

Northern Mixed Chaparral (37130)

Northern mixed chaparral is a community of broad-leaved sclerophyll shrubs, 6.6 to 13.1 feet tall, forming dense, often nearly impenetrable vegetation dominated by scrub oaks, chamise, and any one of

several taxa in *Arctostaphylos* and *Ceanothus*. Northern mixed chaparral within the survey corridor is dominated by a composition of chamise, scrub oak, desert scrub oak, Mexican manzanita, cupleaf ceanothus, and mountain mahogany, with a notable presence of beargrass, Mojave yucca, chaparral candle, woolly bluecurls, sugar bush, and silk tassel.

In San Diego County, this vegetation community is found inland of southern mixed chaparral, and can be indicated by cupleaf ceanothus and other co-dominants (chamise, scrub oak, and other oak hybrids) (Oberbauer et al. 2008). Within the survey corridor, it is located primarily along the north-south trending ridge and associated slopes that form the western boundary of McCain Valley. On exposed areas along the ridge and where it had been limited by shallow soils or affected by fire, this chaparral is often shorter than 7 feet but is still considered northern mixed chaparral based on density and species composition.

Northern mixed chaparral in the proposed project area could further be defined as granitic northern mixed chaparral (37131) due to the prevalence of granitic soils. In San Diego County, granitic northern mixed chaparral is widespread upslope of the southern mixed chaparrals and west of semi-desert chaparral (37400) (Oberbauer et al. 2008). Generally, within the proposed project area northern mixed chaparral occurs in areas that receive little use from people or livestock. Past fire-related disturbance is evident along the ridges northwest of the valley. This common upland habitat is similar to San Diego County MSCP communities within Tier III.

Red Shank Chaparral (37300)

Red shank chaparral is very similar to chamise chaparral (37200), but dominated by red shank, a close relative of chamise and typically taller 6 to 13 feet. It is somewhat more open, often forming nearly pure stands (at least 50 percent cover) of red shank (Oberbauer et al. 2008; Holland 1986). A sparse understory of flat-topped buckwheat, annual forbs, brome grasses and other low shrubs becomes denser in canopy openings and edges where the red shank community intergrades with surrounding vegetation.

In the proposed project area, red shank chaparral is found on the lower slopes of McCain Valley, often adjacent to and intergrading with chamise chaparral and scrub oak chaparral. This common upland habitat is similar to San Diego County MSCP communities within Tier III.

Scrub Oak Chaparral (37900)

Scrub oak chaparral is an evergreen chaparral dominated by scrub oak species, often with considerable mountain mahogany. In San Diego County, scrub oak is often the dominant plant (over 50 percent cover) and usually occurs in small patches within a variety of other vegetation communities (Oberbauer et al. 2008; Holland 1986). In the proposed project area this vegetation community ranges from very dense, tall clusters of scrub oak and mountain mahogany to more open, widely spaced stands dominated by either mountain mahogany or scrub oak. This community is distinctive from other chaparral communities because it has only a minimal presence of other large shrub species. Common scrub oak species observed in the survey corridor include desert scrub oak, scrub oak and interior live oak. Many scrub oak individuals in the survey corridor were observed with intermediate taxonomic traits, indicating that hybridization is likely occurring.

Various composites of scrub oak chaparral occur throughout the proposed project area. On the ridge west of McCain Valley, scrub oak chaparral occurs as: (1) small, dense stands dominated by scrub oak; (2) communities on vegetated slopes with a high percentage of scrub oak that intergraded strongly with adjacent northern mixed chaparral (37130); and (3) communities on mesic vegetated slopes dominated by mountain mahogany (especially tall and dense on slopes above drainage courses). On the lower hills within McCain Valley, open scrub oak chaparral includes significant areas of regularly spaced scrub oaks

or mountain mahogany shrublands that gradually intergraded with semi-desert chaparral (37400) or upper Sonoran subshrub scrub (39000). Vegetation dominated by mountain mahogany with scattered oaks is a common form of scrub oak chaparral in the proposed project area. Holly-leaf cherry, chamise and other chaparral shrub species are occasional associates. In general, scrub oak and mountain mahogany are predominant and associate species contribute little cover. However, where scrub oak chaparral is more open, the understory is comprised of flat-topped buckwheat and herbaceous species.

Within McCain Valley, scrub oak chaparral occurs along drainage courses, around rock outcrops, and on mesic slopes. This vegetation community is widespread in the survey corridor. The general level of disturbance correlates with the surrounding land use, but it is mostly high-quality habitat. This common upland habitat is similar to San Diego County MSCP communities within Tier III.

Semi-Desert Chaparral (37400)

Semi-desert chaparral is similar to northern mixed chaparral (37110), but more open and not as tall (Oberbauer et al. 2008; Holland 1986). Shrub density ranges from very open chaparral, similar to upper Sonoran subshrub scrub (39000), to that of denser northern mixed and scrub oak chaparrals (37130 and 37900). Dominant species include chamise, scrub oak species, cupleaf ceanothus, and mountain mahogany. Common associates include Mexican manzanita, sugar bush, and holly-leaf cherry. Occasional associates include desert apricot, canyon silk tassel, holly-leaf redberry, California matchweed, wedgeleaf goldenbush, small wreath-plant, and showy penstemon.

Semi-desert chaparral supports several taxa that are not broad-leaved sclerophylls. In open spaces between larger shrubs, it supports a sub-shrub community of flat-topped buckwheat with California ephedra and cane cholla, and an herbaceous understory of brome grasses, goldfields, red-stemmed filaree, golden yarrow, chia, linanthus, San Diego gilia, and popcorn flower.

In San Diego County, this vegetation community occurs throughout the eastern escarpment of the Peninsular Range. In McCain Valley, the semi-desert chaparral is a transition zone chaparral that often intergrades with open scrubs and other chaparrals. This is the most abundant vegetation community in the survey corridor. The general level of disturbance correlates with the surrounding land use, but it is mostly high-quality habitat. This common upland habitat is similar to San Diego County MSCP communities within Tier III.

Southern North Slope Chaparral (37E00)

Southern north slope chaparral is a mixed chaparral with no clear dominant species. This vegetation community is typically found on more mesic exposures. In southern California, it is associated with scrub oak chaparral (Holland 1986). Shrub species common in this community include scrub oak, desert scrub oak, manzanita, desert apricot, chamise, holly leaf-cherry, sugar bush, mountain mahogany, and holly-leaf redberry. In the survey corridor this vegetation community can be distinguished from semi-desert chaparral (37400) by the increased presence of uncommon associate species (manzanita, desert apricot, holly-leaf cherry) and a decrease in the percentage of chamise.

Southern north slope chaparral generally occurs in areas of exposed rocks where moisture is present in rock openings and along edges. This common upland habitat is similar to San Diego County MSCP communities within Tier III.

Southern Riparian Woodland (62500)

Southern riparian woodland is a moderately dense riparian woodland dominated by small trees or shrubs, with scattered taller riparian trees (Oberbauer et al. 2008). Within the survey corridor, this vegetation

community can be found along a drainage that runs parallel to Old Highway 80 near the intersection with McCain Valley Road, and in one isolated location west of McCain Valley Road. Both areas are disturbed and consist of a narrow strand dominated by Gooding's black willow, arroyo willow and blue elderberry. Within the San Diego County MSCP communities, riparian woodlands are a sensitive natural Tier I community.

Southern Willow Scrub (63320)

Southern willow scrub occurs in riparian zones dominated by small trees or shrubs, dominated by several willow species (Oberbauer et al. 2008). Within the survey corridor, this community is characterized by willow and occasional mule fat that is confined to narrow channels or constrained by surrounding land use or infrastructure (i.e., roads, dry land farming).

Stands of southern willow scrub in the survey corridor are dissipated, occurring in areas that have been previously disturbed and are influenced by channel improvements or some other form of ground disturbance. Riparian habitat is a sensitive natural community and is considered rare (Tier I) within the San Diego County MSCP communities.

Unique Features

A striking physical environmental characteristic of McCain Valley is the abundance of boulders and rock outcrops strewn throughout the area. In arid regions, areas with a high percentage of exposed rock generally have increased moisture availability along cracks and crevices that can support diverse assemblages of species. Exposed bare granitic rock formations within the survey corridor provide microhabitats for certain plant species not found in surrounding vegetation communities, such as wedge-leaf goldenbush and Jacumba monkeyflower. These features also provide habitat and cover for wildlife, such as rock wren, granite spiny lizard, and rock roosting raptors and bats.

Fuel breaks line both sides of McCain Valley Road and other unpaved roads in the survey corridor. Fuel breaks were cleared sometime in late 2008, and do not appear in aerial photographs of the area taken prior to this time. The fuel breaks extend out approximately 70 feet (21 m) on either side of the road, and line several miles of roads in the survey corridor. They have not been grubbed or graded, and many low shrubs, subshrubs, grasses and forbs have remained or recovered from the initial clearing. Most medium and large shrubs have been cut or removed, but some larger shrubs have been pruned and purposefully left in place. On the Biological Resources Map (BTR Appendix H), natural communities that have been affected by the fuel breaks are indicated with an "f-".

Upper Sonoran Manzanita Chaparral (37B00)

Upper Sonoran manzanita chaparral is a dense chaparral in which dominance is shared by chamise and various species of manzanita (Oberbauer et al. 2008; Holland 1986). It is characterized by dense vegetation, usually less than 5 ft tall, dominated by Mexican manzanita and chamise, with low percentage of other chaparral associates (e.g., scrub oak, cupleaf ceanothus, and silk tassel). The community occurs on dry rocky slopes and ridge tops with little soil. The herbaceous layer is sparse, consisting mainly of annual grasses and herbs.

Within the survey corridor, this vegetation community occurs on the upper slopes of the ridge west of McCain Valley. Upper Sonoran manzanita chaparral intergrades with northern mixed chaparral (37130) and chamise chaparral (37200) along the ridge. Within the survey corridor, upper Sonoran manzanita chaparral occurs in areas with low levels of human or livestock disturbance. This common upland habitat is similar to San Diego County MSCP communities within Tier III.

Upper Sonoran Subshrub Scrub (39000)

Upper Sonoran subshrub scrub is a low, fairly penetrable scrub of soft-wooded, summer-dormant, drought-tolerant shrubs with many annual grasses and forbs filling the spaces between the shrubs (Oberbauer et al. 2008; Holland 1986). In general, within the proposed project corridor this vegetation community is dominated by flat-topped buckwheat and usually includes interior goldenbush, cholla, or California ephedra. In McCain Valley, this community intergrades with semi-desert chaparral (37400) and scrub oak chaparral (37900), and therefore will often include scattered larger chaparral shrub species. Additional species found in upper Sonoran subshrub scrub within the proposed project area include Wright's buckwheat, Mojave yucca, California matchweed, shiny-leaf yerba santa, and genera of the Boraginaceae and Hydrophyllaceae families. Common annual grasses within this community include red brome, cheat grass, and wild oats.

Upper Sonoran subshrub scrub is found on low hills with dry exposures throughout the southern portion of the survey corridor. In the extreme southern portions of McCain Valley and in areas west of McCain Valley Road this community often shows evidence of disturbance from grazing or recreational use (off-highway vehicle [OHV]). This common upland habitat is similar to San Diego County MSCP communities within Tier III.

3.4.1.2 Sensitive Plant Species

This section will discuss sensitive plants that have been identified within the survey corridor as well as those with the potential to occur within the survey corridor. For purposes of this report, "sensitive" species are those listed as endangered, threatened, species of special concern or otherwise noteworthy by the California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (USFWS), BLM or the Draft East County MSCP Covered Species List.

High floristic diversity was found within the project area due to the range of elevation and size of the project. The majority of exotic species present are mustards, filaree and bromes, and are mostly found in previously disturbed areas. Most of the survey corridor is of good quality, with healthy native vegetation populations found throughout. A total of 297 species of plants were identified in the survey corridor; 264 of these species are California native plants and 33 are non-native, or exotic. During plant surveys conducted from November 2009 through August 2010, 12 sensitive floral plant species have been identified within the survey corridor: desert beauty, Jacumba milkvetch, Jacumba monkeyflower, Palomar monkey flower, Payson's jewel flower, southern jewelflower, sticky geraea, Laguna Mountain alumroot, San Diego hulsea, Mountain Springs bush lupine, Oceanblue larkspur, and Tecate tarplant.

Additional species with potential to occur within the proposed project area include California Ayenia, San Diego barberry, Mexican hulsea, Moreno currant, Parry's tetracoccus, San Bernardino aster, San Diego milk vetch, Slender-leaved ipomopsis/scarlet gilia, spearleaf, and Wolf's cholla. Species with potential to occur within the proposed project area are addressed in **Table 3.4-2**, with identified sensitive species found within the survey corridor listed in bold.

3.4 Biological Resources

Table 3.4-2. Potential Sensitive Botanical Species Occurring within the Proposed Project Survey Corridor

Species	Latin Name	Status	Habitat	Survey Time	Notes
PLANTS					
California ayenia	<i>Ayenia compacta</i>	Fed: None State: None BLM: None MSCP: None CNPS List: 2.3 County: List B	Found in rocky canyons and desert arroyos.	March-April	CNDDDB record in the vicinity. Not observed. Has potential to occur on-site.
Desert beauty	<i>Linanthus bellus</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: 2.3 County: List A	Found in high desert chaparral, usually in broad sandy openings.	April-May	Observed on site.
Indian valley bushmallow	<i>Malacothamnus aboriginum</i>	Fed: None State: None BLM: None MSCP: None CNPS List: 1B County: None	Found in rocky places in the Laguna Mountains, above 1500 m (4921 ft).	May-August	Not observed. Not expected to occur on-site.
Jacumba milkvetch	<i>Astragalus douglasii</i> var. <i>perstrictus</i>	Fed: SOC State: None BLM: Sensitive MSCP: Proposed Covered* CNPS List: 1B.2 County: List A	Found in chaparral, valley grasslands, and foothill woodlands.	April-June	Possibly observed on site. Awaiting flowering for positive identification.
Jacumba monkey flower	<i>Mimulus aurantiacus</i> var. <i>aridus</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: None County: None	Found among large rock in chaparral.	March-September	Observed on-site.
Laguna Mountains alumroot	<i>Heuchera brevistaminea</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: 1B.3 County: List A	Found in rocky outcrops in montane chaparral.	May-July	Observed on-site.
Laguna Mountain goldenbush	<i>Ericameria cuneata</i> var. <i>macrocephala</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: None County: List:: A	Found in rock outcrops in montane and transmontane habitats.	September - December	Not observed. Not expected to occur on-site.

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
Mexican hulsea	<i>Hulsea mexicana</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: 2.3 County: List B	Associated with open, high desert chaparral.	April-June	Not observed. Has potential to occur. on-site.
Moreno currant	<i>Ribes canthariforme</i>	Fed: SOC State: None BLM: Sensitive MSCP: Proposed Covered* CNPS List: 1B.3 County: None County: List A	Found in chaparral in areas of acid igneous rock land, with massive, exposed boulders.	February-April	CNDDDB record on-site.
Mountain springs bush lupine	<i>Lupinus excubitus var. medius</i>	Fed: SOC State: None BLM: Sensitive MSCP: Proposed Covered* CNPS List: 1B.3 County: List A	Found in pinyon juniper woodland and Sonoran Desert scrub at higher elevations.	March- April	Observed onsite.
Oceanblue larkspur	<i>Delphinium parishii ssp. subglobosum</i>	Fed: None State: None BLM: None MSCP: None CNPS: List 4.3 County: List D	Creosote brush scrub, chaparral, Sonoran desert scrub and pinyon-juniper woodlands and at elevations of 1,968 to 5,905 feet	March-June	Observed on-site
Palomar monkey flower	<i>Mimulus palmeri</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 4.3 County: List D	Lower montane coniferous forest and chaparral.	April-July	Observed on-site.
Parry's tetracoccus	<i>Tetracoccus dioicus</i>	Fed: SOC State: None BLM: Sensitive MSCP: Proposed Covered CNPS List: 1B.2 County: List A	Found in low-growing chamise chaparral, with moderately dense canopy cover.	April- May	Not observed. Has low potential to occur on-site.
Payson's jewel flower	<i>Caulanthus simulans</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: 4.2 County: List D	Grows in sheephead rocky fine sandy loam.	March-June	Observed on site.
Pentagramma triangularis ssp. nov.	<i>Pentagramma triangularis ssp. nov.</i>	Fed: SOC State: None BLM: None MSCP: None CNPS: None County: None	Undescribed taxon, no habitat information available.	NA	NA

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
San Bernardino aster	<i>Symphotrichum defoliatum</i>	Fed: None State: None BLM: None MSCP: None CNPS List: List 1B.2 County: None	Dry open grasslands and meadows, near springs at elevations from sea level to 1700 m (5577 ft).	August- November	Not observed. Has potential to occur on-site.
San Diego barberry	<i>Berberis higginsiae</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 3 County: List C	High desert chaparral.	Year round	CNDDDB record on-site.
San Diego hulsea	<i>Hulsea californica</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: 1B County: List A	Found in montane coniferous forest and lightly disturbed chaparral.	April- June	Observed onsite.
San Diego Milk Vetch	<i>Astragalus oocarpus</i>	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* CNPS List: 1B.2 County List: A	Found at montane chaparral edges and at the periphery of meadows.	May-August	Not observed. Has potential to occur on-site.
Slender-leaved ipomopsis/scarlet gilia	<i>Ipomopsis tenuifolia</i>	Fed: None State: None BLM: None MSCP: None CNPS List: 2.3 County: List B	Found in pinyon juniper woodland or at higher elevation Sonoran Desert scrub.	March-May	CNDDDB record in the vicinity.
Southern jewel-flower	<i>Streptanthus campestris</i>	Fed: None State: None BLM: None MSCP: None CNPS List 1B.3 County: List B	Found in juniper woodland or high desert transitional chaparral.	May- July	Observed on-site.
Spearleaf	<i>Matelea parvifolia</i>	Fed: None State: None BLM: None MSCP: None CNPS List: 2.3 County List: B	Sonoran Desert scrub on arid plains and near arroyos; from 400 to 500 m (1312 to 1640 ft).	Mar- May	Not observed. Has potential to occur on-site.
Sticky geraea	<i>Geraea viscida</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: 2.3 County List: B	Found in high desert chaparral openings.	May-June	Observed on-site.

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
Tecate tarplant	<i>Deinandra floribunda</i>	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* CNPS: List 1B.2 County List: A	Associated with sandy washes in the high desert.	August-October	Observed on site.
Wolf's cholla	<i>Cylindropuntia wolfii</i>	Fed: None State: None BLM: None MSCP: None CNPS List: 4.3 County List: D	Dry deserts above valley floors; 300 to 1200 m (984 to 3937 ft).	April-June	Not observed. Has potential to occur on-site.

Source: Draft HDR Biological Technical Report, HDR Engineering, Inc., September 2010

*Listed in County of San Diego Draft (East County) MSCP Plan covered species list.

**Potentially observed outside the survey corridor or while in transit to and from the site.

Note: Identified sensitive species found within the survey corridor listed in bold

Key:

Fed = Federal listing.

State = State listing.

BLM = Bureau of Land Management listing.

MSCP = Multiple Species Conservation Program listing.

CNPS = California Native Plant Society listing.

County = County of San Diego listing.

SSC = State Species of Concern

SOC = Species of Concern

BGPA = Bald and Golden Eagle Act

List 1B.2 = List 1b: Rare, threatened, or endangered in California and elsewhere. 0.2: Fairly endangered in California.

List 2.3 = List 2: Rare, threatened, or endangered in California, but more common elsewhere. 0.3: Not very endangered in California.

List 4.2 = Limited distribution (Watch list). 0.2: Fairly endangered in California.

List 4.3 = Limited distribution (Watch list). 0.3: Not very endangered in California.

List A = Plants rare, threatened or endangered in California and elsewhere.

List B = Plants rare, threatened or endangered in California but more common elsewhere.

Southern California and San Diego County host several unique and biologically diverse species of plants. General vegetation surveys conducted in November and December of 2009 and January of 2010, in which suitable habitat was identified for several sensitive plant species. The surveys were not conducted during the appropriate time of year to positively identify sensitive plants. However, two sensitive botanical species, sticky geranium (MSCP listed) and Tecate tarplant (BLM and MSCP listed) were identified during surveys. No state or federally listed threatened or endangered plant species occur within project area.

3.4.1.3 Native Wildlife

The proposed project area occurs within the McCain Valley BLM designated Resource conservation Area. This area has an abundance of high-quality habitat for wildlife and a high connectivity to protected, undeveloped land to support a variety of native avian, mammalian, reptilian, and amphibian species. During field studies conducted from March 2005 to April 2010, 16 amphibians/reptiles, 45 invertebrates, 101 birds, and 18 mammal species were detected on site, discussed in more detail in the Draft BTR, Appendix B (Appendix H).

Habitat within the survey corridor supports small animals, such as reptiles, amphibians, and rodents, as well as wide ranging species such as mule deer, and mountain lion. Other common wildlife species in the

survey corridor include black-tailed jackrabbit, and antelope ground squirrel. The area also serves as a migratory corridor for numerous species of neotropical migrant birds (BLM 2007). The most common neotropical migrants observed in the survey corridor include white throated swift, Vaux's swift, and spotted towhee (Hurley 2008). Other common wildlife species in the survey corridor include black-tailed jackrabbit, antelope ground squirrel, western scrub-jay, common raven, red-tailed hawk, house finch, turkey vulture, California towhee, and wren. Additional species that have been observed or can be assumed present include southern Pacific rattlesnake, red diamond rattlesnake, Southwestern speckled rattlesnake, pacific gopher snake, side-blotched lizard, and Yuma myotis.

Additional species that have been observed or can be assumed present include southern Pacific rattlesnake, red diamond rattlesnake, Southwestern speckled rattlesnake, pacific gopher snake, side-blotched lizard, Common Chuckwalla, and Yuma myotis.

Wildlife Surveys

The following animal species surveys have been conducted for the project area:

Arroyo Toad

During the different surveys conducted in 2005 through 2009, suitable habitat for the arroyo toad was not observed within the survey corridor. There are limited numbers of drainages that drain into the Tijuana River watershed. Most of the proposed project is located on the eastern half of the unnamed north/south-oriented ridge that divides the project area. These drainages are a part of the Salton Sea watershed. In September 2008, Tetra Tech, Inc. contacted Mr. John Konecny (Konecny Biological Services), Mr. Brad Hollingsworth (San Diego Natural History Museum), and Mr. Ed Irvine (Merkel & Associates Inc.) to obtain information on arroyo toad habitat suitability within the project area. The meeting confirmed there are no historical records for this species in McCain Valley.

Nesting Golden Eagle Survey

A Nesting Golden Eagle Survey was completed for the project at the request of USFWS. The survey was completed using the USFWS recommended Interim Survey Protocol for 2010. The Interim Survey Protocol indicated that the inventory of potential nesting territories should include the proposed project footprint (impact extent) and suitable habitat within a 10-mile radius of the project. Wildlife Resources Institute (WRI) of Ramona, California was contracted to fly these surveys. WRI is recognized by USFWS as raptor specialists suitable for such work. A helicopter survey was conducted on March 30, 2010 using the protocols recommended by USFWS. Within a 10-mile radius, 10 historically known eagle territories were identified. During the survey, six of the ten territories had adult eagles present. Three territories had active nests which contained females incubating eggs. However, no nests were identified within 4,000 feet of the survey corridor per the USFWS protocol. A detailed discussion of the findings is included with the Golden Eagle Information Tule Wind Project report in the Draft BTR Appendix M (Appendix H).

In addition in June 2010 West, Inc. provided a site specific evaluation of the golden eagle nest data collected for the Tule Wind Project from the WRI nest survey and other data available for the project area including additional information regarding potential impacts of wind turbines on golden eagles. A detailed discussion of the findings is included with the Golden Eagle Information Tule Wind Project report in the Draft BTR Appendix M (Appendix H).

Limitations: The single survey provides information only on the number of occupied territories. It does not provide productivity or the use of the project footprint as a foraging area or as a migratory route by eagles.

Granite Magic Gecko/Barefoot Banded Gecko Habitat Assessment

Herpetologist Eric A. Dugan completed a habitat assessment for the granite magic gecko/barefoot banded gecko within the Tule Wind Project survey corridor June 1, 2010. The survey consisted of a visual inspection of the potential granite magic gecko/barefoot banded gecko habitat in the survey corridor. The majority of the survey was conducted near the eastern boundary, overlooking Carrizo Gorge and other unnamed ranges to the east.

Bat Surveys

Bat surveys were conducted by Western EcoSystems Technology, Inc. (WEST) between September 2008 to August 2009 and from March 2010 to April 2010. Surveys were initiated on September 4, 2008 at two existing meteorological towers, and on March 25, 2010 at nine abandoned mine openings within the proposed project footprint. The protocol used for this study follows guidelines set forth by the California Energy Commission (CEC; 2007 as cited in WEST 2009). For Tier 2 projects, the guidelines require continuous monitoring of bat activity at each of the meteorological towers on-site for 12 consecutive months. The detailed results of the bat surveys to date are included in Draft BTR Appendix E (Appendix H).

Limitations: Bats were categorized by frequency groups and individual species were not identified. The entire rotor-swept zone was not surveyed for bat activity due to limitations of the Anabat™ technology.

Quino Checkerspot Butterfly (QCB) Surveys and Habitat Assessment

The Quino checkerspot butterfly (QCB) is a federally endangered species with the potential to occur in portions of the project area, although the project area is not located within the designated QCB critical habitat. A QCB habitat assessment was conducted in 2008 and a focused survey for QCB was conducted in portions of the current survey corridor in 2009 by Dudek, Inc. , Draft BTR Appendix G (Appendix H). A second QCB habitat assessment was conducted in 2010 for additional portions of the survey corridor, and a second focused survey for QCB was conducted by HDR in March through May 2010.

Two assessments have been completed for the project, one in 2008 by Dudek and the second one in 2010 by HDR. The QCB habitat assessment was completed using USFWS protocol methodologies. The field efforts were based upon regional species observations reported. Areas that are not U.S. Fish and Wildlife Service (USFWS)-designated QCB survey corridors were not included in the survey corridor. QCB habitat assessments and focused QCB surveys were timed to correspond with the presence of the host plant species and the flight season of the adult QCB. As the project has progressed, additional areas of assessment have been identified. HDR included these additional areas in the 2010 assessment. The results of the QCB habitat assessment are included in the Draft BTR, Appendix G (Appendix H).

HDR and Dudek Inc. combined have assessed 3,419 acres of the survey corridor for QCB habitat suitability. Of the total number of acres assessed 558 acres (approximately 16 percent) were excluded as not being suitable for QCB habitat. A GIS review of post-habitat assessment mapping revealed that portions of the survey corridor (approximately 1,435 acres) which were thought to have been assessed during the 2008 assessment period for QCB habitat suitability were not within the current survey corridor. In order to estimate the amount of habitat suitability of the remaining un-surveyed acres HDR applied the percent (approximately 16 percent) excluded from the QCB habitat assessment surveys

completed to the un-surveyed acres and it was determined that estimated additional 234 acres (approximately 16%) would be excluded as being unsuitable for QCB habitat. During QCB focused surveys, HDR documented the presence of QCB host plants Chinese houses and thread-leaved bird's beak. A single QCB was recorded within the survey corridor on April 20, 2010. This observation was reported to USFWS on April 21, 2010.

Avian Surveys

Avian surveys were conducted by Tetra Tech, Inc., at regular intervals from March 2005 to March 2006, and again from September 2007 to September 2008. Avian surveys were conducted using a fixed point methodology. Additional avian species were added using incidental observations from all surveys. Eight sensitive bird species were identified in the survey corridor (golden eagle, loggerhead shrike, northern harrier, olive sided flycatcher, rufous crowned sparrow, turkey vulture, Vaux's swift, and yellow warbler). The detailed results of the avian surveys are included in the Draft BTR (Appendix H).

Limitations: Nocturnal bird surveys were not completed. Double-counting of birds is not problematic for this type of survey because the objective is to document use in terms of number of birds noted per 30-minute survey, not number of distinct individual birds.

Additional Surveys

Vegetation Surveys

HDR conducted vegetation community classification and mapping within the survey corridor between November 9, 2009 and January 13, 2010. The survey corridor included a buffer of approximately 200 feet (61 meters) from the footprint extent of each turbine and 150 feet (46 meters) from the footprint extent of all roads, and additional facilities, as required by the County of San Diego Biological Survey Requirements. Approximately 92.5 percent of the proposed project footprint and 87 percent of the survey corridor was directly surveyed in the field. A portion of the survey corridor was not surveyed due to access restrictions and/or changes in project design after conclusion of the surveys, and is discussed below.

Limitations: When possible, areas of restricted or limited access were surveyed from the public ROW or from adjacent parcels where access was granted. As access issues are resolved prior to implementation of the proposed project, additional vegetation, wetland, floral, and faunal surveys will be completed.

Rare Plant Surveys

Prior to the proposed special status plant species surveys, the CNDDDB was consulted to determine the potential for various special status species to occur within the project area. HDR conducted vegetation community classification and mapping surveys for the survey corridor in November and December 2009.

Three phases of surveys were conducted in the survey corridor in 2010; one complete survey during the early blooming season (March 29-April 30), one complete survey during the late blooming season (May 16-June 7), and one focused survey for Tecate tarplant is scheduled for October 2010. The surveys were floristic in nature and were conducted in a manner that ensured the highest likelihood of locating and identifying special status plant species.

Limitations: The surveys were not completed prior to the Draft BTR and are continuing. Rare plant surveys are expected to be completed in October 2010.

Wetland surveys

Field surveys of the survey corridor were conducted by HDR between August 2009 to January 2010, and March 2010. Jurisdictional areas affected by the project area, survey dates, times, and conditions are located in the Jurisdictional Wetland Delineation Report (JWDR) in Appendix D. To capture drainages within and adjacent to the proposed project footprint, the survey corridor included a buffer of approximately 200 feet (61 meters) from the footprint extent of each turbine and 150 feet (46 meters) from the footprint extent of all roads, power lines and additional facilities, as required by the County of San Diego Biological Survey Requirements.

Limitations: Approximate length and widths of jurisdictional areas occurring within access-restricted or limited areas were mapped (on aerial photography or with a GPS unit) when possible from the public ROW or from adjacent parcels where access was granted.

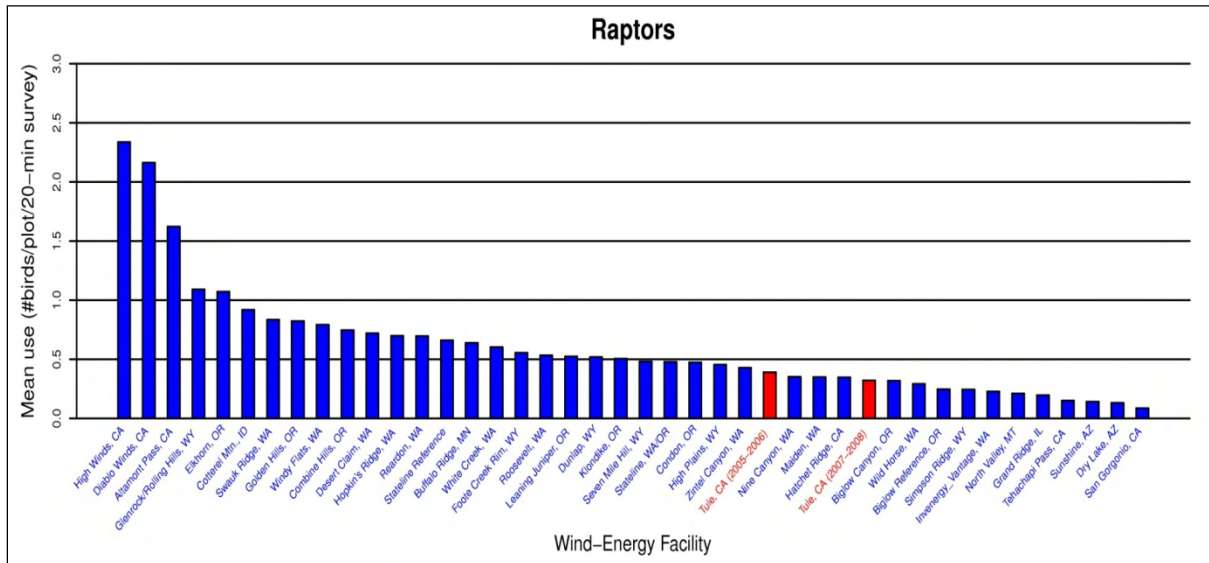
Avian Species

McCain Valley lies within the Peninsular Ranges, which is capable of supporting more than 400 bird species, including warblers, ducks, sandpipers, phalaropes, gulls, terns, sparrows, towhees, and flycatchers. Most of these species are migrants or winter residents (SDG&E 2008). All of the habitats on site support varying numbers of bird species.

During the avian surveys for the project, bird species protected under the Migratory Bird Treaty Act of 1918 (MBTA) (e.g., mallard, black-chinned hummingbird, northern rough-winged swallow, red-tailed hawk, etc.) were noted. Songbirds had the highest observation rate of all bird species groups during conducted surveys; although this bird group experiences survey limitations due to double counting. Crows and their allies were the second most commonly observed group of birds within the survey corridor, followed by raptors. Additionally, three golden eagles were incidentally observed (Hurley 2008). Red-tailed hawk and turkey vulture were the most commonly observed raptor on-site occurring during 35.0 percent and 22.3 percent of all survey periods, respectively. Raptor nest surveys in 2008 revealed 14 nests within the project study area, two of which were later determined to be active, which demonstrates that suitable habitat for raptor breeding is present within the survey corridor (Hurley 2008). Active great horn owl and red tail hawk nests were observed during other surveys in 2010. Raptors are of special concern when considering impacts to bird species. The majority of bird species observed within the survey corridor are protected under the MBTA, with the exception of some game species, all non-native species, and wrenit.

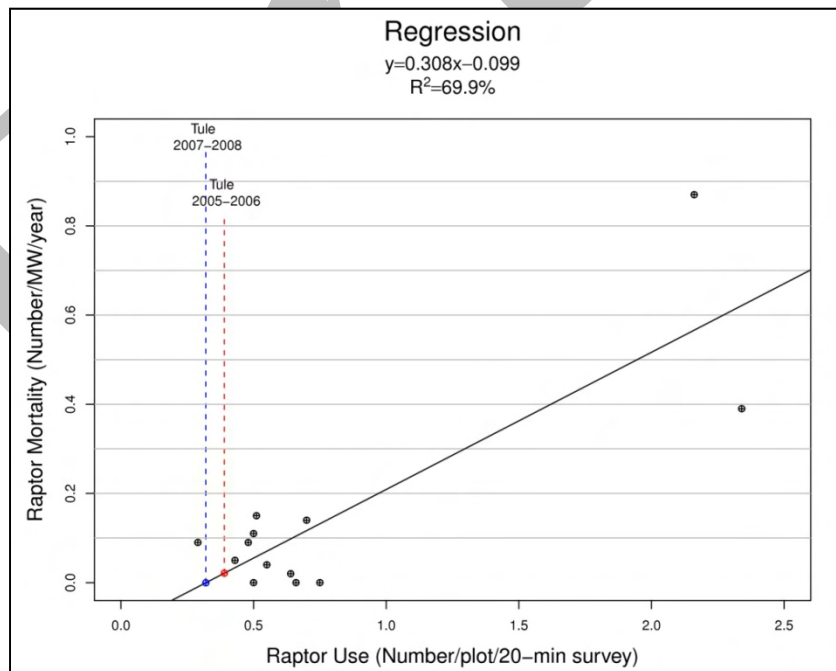
As indicated in **Figure 3.4-1**, the proposed project areas has relatively low raptor observations over the course of four years compared to other wind project throughout the western states. According to the regression table shown in **Figure 3.4-2**, the raptor numbers identified in the 2007-2008 survey year decreased from the 2005-2006 survey year. Additionally, the number of predicted fatalities decreased from 0.28 fatalities to 0.26 fatalities. When raptor use is low (below 1.0 birds in 30 minutes), a correlation is reflected in the raptor mortality. As shown in **Figure 3.4-2** raptor deaths decreased from 0.28 in 2005-2006 to 0.26 in 2007-2008 (Hurley 2008, Erickson 2007).

Figure 3.4-1. Comparison of Annual Raptor Use Between the Tule Wind Project and Other U.S. Wind-Energy Facilities



Source: Western EcoSystem Technology, Inc.

Figure 3.4-2. Regression Analysis Comparing Raptor Use Estimations Versus Estimated Raptor Mortality



Source: Western EcoSystem Technology, Inc.

Bat Species

The terrain of the McCain Valley consists of rolling hills, granite outcrops, ephemeral washes and a variety of vegetation types including non-native grassland, agricultural land, chaparral communities, and coast live oak and riparian woodland. These varied topographic and vegetative features combined with available water sources in close range (4.5 miles) of the proposed project site provide the necessary roosting and foraging resources for the majority of bat species found in San Diego County. Of the 22 species reported in San Diego County, at least 13 have been recorded in the mountain and desert transition areas of eastern San Diego County near the project site. The following bat species are listed under the BLM as sensitive species and have the potential to occur on-site; spotted bat, Pallid bat, Long-eared myotis, Small-eared myotis, fringed myotis, California leaf-nosed bat, In addition, the Pallid bat is also listed under the San Diego MSCP.

Open mine tunnels could serve as add potential day roost, maternity sites and hibernacula (hibernation sites) resources for several species. The openings of abandoned mines that could provide suitable roosting, maternity and hibernacula resources were studied to determine their potential use. Abandoned mine openings were assessed at two locations on a State Lands Commission parcel along the northwest edge of the project site. Six openings were located and assessed in the southern location, and three shafts were assessed in the northern location. The abandoned mine openings ranged from undercut schisms to straight tubular shafts.

An Anabat detector was placed downslope of the entrance to the horizontal shaft, but results from the detector are not yet available. This Anabat detector will remain at this location for longer-term monitoring through the 2010 survey season. Bat monitoring was conducted at two meteorological towers in 2007 with bat detectors for 1,249 monitoring nights, during which 4,824 echolocation sequences were detected, or approximately 3.9 sequences per night. Echolocation analysis has determined that bat species including California leaf-nosed bat, western small-footed myotis, long-legged bat, and Yuma myotis may also be present in or near to the project area. No threatened or endangered bat species are expected to occur in the project area.

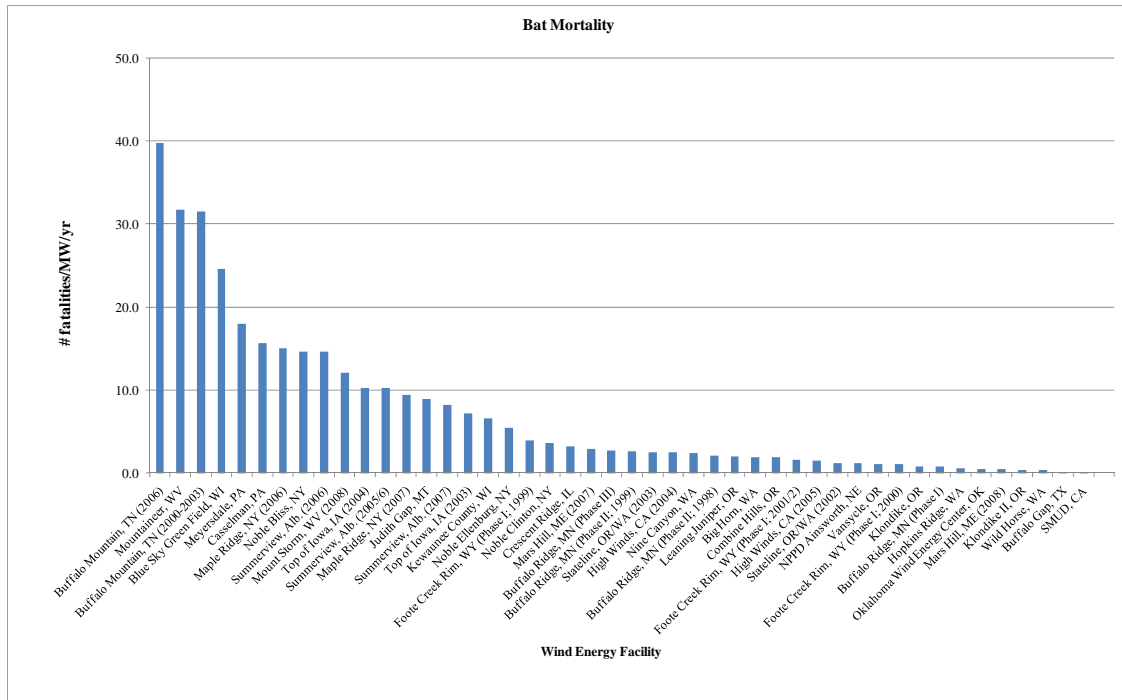
As shown in **Figure 3.4-3** the mortality rates for bats have a lower mortality rate in California compared to other portions of the United States. **Figure 3.4-4** presents the same information but only for wind projects in the western states.

Wildlife Species

Several wildlife species observed on-site are protected under a variety of county, state, and federal laws.

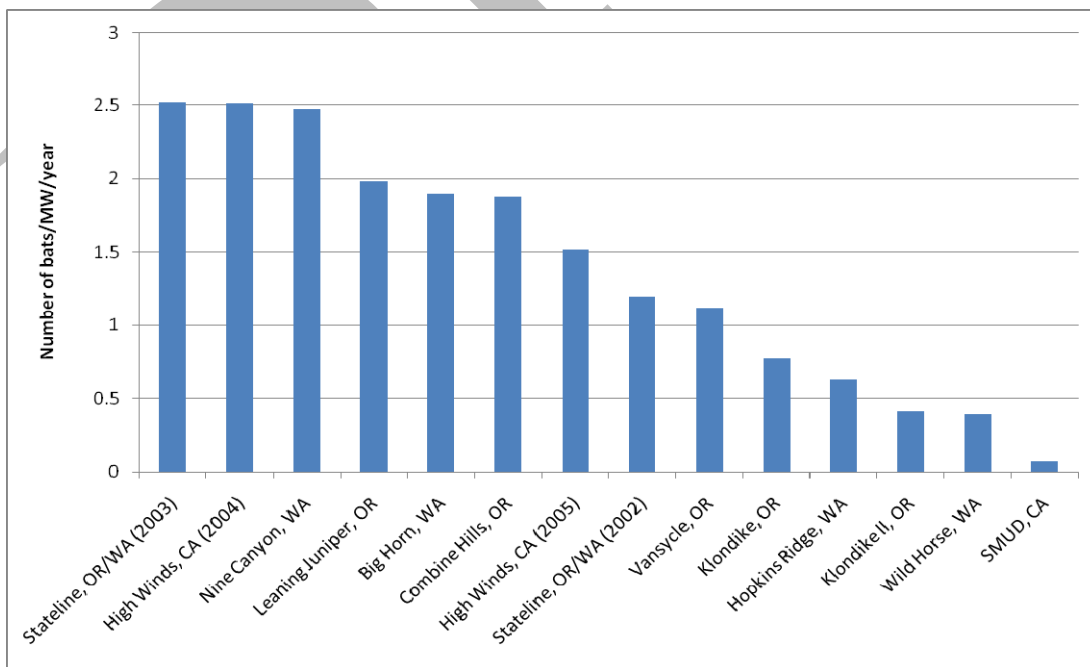
For purposes of this report, “sensitive” species are those listed as endangered, threatened, species of special concern or otherwise noteworthy by CDFG, USFWS, BLM or the Draft East County MSCP Covered Species List. The following sensitive wildlife species were observed during the 2005 through 2010 survey period: Quino checkerspot butterfly, western spadefoot toad, coast (Blainville’s) horned lizard, coast patch nosed snake, coastal rosy boa, Cooper’s hawk, golden eagle, loggerhead shrike, long-eared owl, northern harrier, olive-sided flycatcher, prairie falcon, rufous-crowned sparrow, turkey vulture, Vaux’s swift, western bluebird, yellow warbler, San Diego black-tailed jackrabbit, and the Western small-footed myotis.

Figure 3.4-3. Bat Mortality Rates (fatalities/MW/year) at Wind Energy Projects in North America



Source: Western EcoSystem Technology, Inc.

Figure 3.4-4. Bat Fatality Rates (number of bats/MW/year) for Projects in California, Oregon and Washington



Source: Western EcoSystem Technology, Inc.

In addition to these species, several other special status species have the potential to occur within the project area including alkali skipper, American badger, Bell's sage sparrow, coastal western whiptail, Coronado skink, Dulzura pocket mouse, granite night lizard, gray vireo, Los Angeles little pocket mouse, Merriam's kangaroo rat, pocketed free-tailed bat, purple martin, ringtail, San Diego banded gecko, tricolored blackbird, vermilion flycatcher, San Diego desert woodrat, Southern grasshopper mouse, and western burrowing owl. Species for which habitat assessments were conducted but no suitable habitat is present on-site include arroyo southwestern toad, California condor, granite magic gecko/barefoot banded gecko, least Bell's vireo, Peninsular bighorn sheep, southwestern willow flycatcher, and willow flycatcher. Sensitive species with potential or that have occurred (in bold) within the proposed project area are presented in **Table 3.4-3**.

No suitable Arroyo southwestern toad habitat was identified during surveys conducted in 2005 through 2009. Information obtained from Mr. John Konecny (Konecny Biological Services), Mr. Brad Hollingsworth (San Diego Natural History Museum), and Mr. Ed Irvine (Merkel & Associates Inc.) determined that no suitable arroyo toad habitat was located within the McCain Valley area due to the drop in precipitation and coarse and sandy soils that seldom contain water. Additionally, this meeting confirmed no historic records for this species in McCain Valley with the nearest record located approximately 4.3 miles from the survey corridor. Additionally, a single adult QCB individual, which is a federal listed endangered animal species, was observed in the project area in April of 2010. No other federal or state listed species were identified. In addition to these species, several other special status species have the potential to occur within the proposed project area and may be permanently impacted by the project.

A previous avian survey (Tetra Tech 2007-2008) identified the Southwestern willow flycatcher, a federally listed species, to occur in the area of the Tule Wind Resource Area. This subspecies was later determined not to be positively identified due to a lack of vocalization, Avian Record of Conversations, Draft BTR, Appendix L (Appendix H). The Willow flycatcher, a state listed species was reported off-site of the project area although not within the project area. This species breeds in riparian habitat. The project area contains a limited amount of riparian habitat, although not substantial enough to support the species for breeding purposes and is not anticipated to be impacted.

There is very low potential for peninsular bighorn sheep within the proposed project footprint. The survey corridor (east of McCain Valley Road) that is within approximately 800 feet (244 meters) of peninsular bighorn sheep critical habitat is lacking escape terrain (steep, rocky terrain with over 60 percent slope and within two-thirds of a mile of water) which is essential for high-quality peninsular bighorn sheep habitat. However, peninsular bighorn sheep will venture away from escape terrain in search of forage (Bleich et al. 1997), and will move between subpopulations (Turner 1976; Singer et al. 2000a and 2000b; Turner et al. 2004). While there is limited potential for peninsular bighorn sheep to occur within the survey corridor, historically, peninsular bighorn sheep have not been documented in McCain Valley (USFWS 2010b). Based on the distance between the proposed project, documented bighorn sheep use, and the lack of suitable bighorn sheep habitat, the proposed project will not impact Peninsular bighorn sheep.

Table 3.4-3. Potential Sensitive Zoological Species Occurring within the Proposed Project Survey Corridor

Species	Latin Name	Status	Habitat	Survey Time	Notes
INVERTEBRATES					
Alkali Skipper	<i>Pseudocopaedes eunus eunus</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in grassy spots on alkali flats, needs desert salt grass (<i>Distichlis spicata</i> var. <i>stricta</i>) as host plant.	April-September	Not observed. Has a low potential to occur on site.
Quino Checkerspot Butterfly	<i>Euphydryas editha quino</i>	Fed: Endangered State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub. Needs native species of plantain as host plant.	February-April	Single adult observed on site. Potential larval host plants Chinese houses and thread-leaved bird's beak occur on site.
AMPHIBIANS					
Arroyo toad	<i>Bufo californicus</i>	Fed: Endangered State: None BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits riparian areas with willows, sycamores, oaks, and cottonwoods. Extremely specialized habitat needs, including exposed sandy streamside's with stable terraces for burrowing with scattered vegetation for shelter, and areas of quiet water or pools.	Generally March 15-July 1. At least one survey during the months of April, May, and June.	Not expected or known from project area. No perennial or intermittent streams on-site.
Western spadefoot toad	<i>Scaphiopus hammondi</i>	Fed: None State: SSC BLM: Sensitive MSCP: Proposed Covered* County: None	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains.	October-May (during heavy rains)	Tadpoles observed on site.
REPTILES					
Coast horned lizard	<i>Phrynosomablainvillei</i>	Fed: None State: SSC BLM: Sensitive MSCP: None County: Group 2	Many native habitats usually in association with harvester ants.	Year round	Observed on-site.

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
Coast patch nosed snake	<i>Salvadora hexalepis virgultea</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 2	Inhabits semi-arid brush and chaparral in canyons, rocky hillsides and plains from sea level to 2,100m (7,000 ft).	March- October	Observed on site.
Coastal rosy boa	<i>Charina trivirgata roseofusca</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in arid scrublands, semi-arid shrub-lands, rocky shrub-lands, rocky deserts, canyons, and other rocky areas	Hottest and coldest months of the year the boa remains inactive. Surveys are weather dependent.	Observed on site.
Common chuckwalla	<i>Sauromalus ater</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 2	Rocky deserts and outcrops in southern California at elevations from sea level to 4500 feet (1,300 meters).	March-June	Observed on-site.
Coastal western whiptail	<i>Cnemidophorus tigris multiscutatus</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Found in shrub or grassland habitats in open, often rocky areas.	Most active in early and late summer.	Found within 1 mile of site. Has potential to occur.
Coronado skink	<i>Eumeces skiltonianus interparietalis</i>	Fed: None State: SSC BLM: Sensitive MSCP: Proposed Covered* County: Group 2	Found in grasslands, woodlands, and forests usually near sunny areas, clearings, or edges from sea level to 2, 530 m (8, 300 ft).	Year round, often hides under leaf litter, bark, and rocks	Not observed. Suitable habitat found on-site.
Granite magic gecko/barefoot banded gecko	<i>Coleonyx switaki</i>	Fed: Threatened State: None BLM: None MSCP: Proposed Covered* County: Group 2	Inhabits arid, rocky outcrops where vegetation is sparse from sea level to 700 m (2,000 ft).	Nocturnal, active spring through fall.	Not observed. No suitable habitat on-site.
Red diamond rattlesnake	<i>Crotalus ruber ruber</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, cultivated areas, and into rocky desert flats.	Surveys are weather dependent; in summer, fall and spring.	Observed on-site. Has potential to occur on-site.
San Diego banded gecko	<i>Coleonyx variegates abotti</i>	Fed: None State: SSC BLM: Sensitive MSCP: None County: Group 1	Creosote bush and sagebrush deserts, pinyon-juniper woodlands, and catclaw cedar-gamma grass associations in the eastern ranges and chaparral habitats in the west.	Nighttime; most active just after dark, with activity declining gradually until ceasing at dawn.	Not observed on-site. Has potential to occur.

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
Two striped garter snake	<i>Thamnophis hammondi</i>	Fed: None State: SSC BLM: Sensitive MSCP: None County: Group 1	Found near permanent fresh water, along streams with rocky beds and riparian vegetation.	Surveys are weather dependent; in summer, fall and spring.	Potential to occur on-site within palm oasis.
BIRDS					
Bells Sage Sparrow	<i>Amphispiza belli belli</i>	Fed: None State: None BLM: None MSCP: None County: Group 1	Common resident in semiarid scrub and sometimes in chamise chaparral.	This bird is generally non-migratory and can be seen year round.	Not observed. Suitable habitat found on-site.
California condor	<i>Gymnogyps californianus</i>	<i>Federal:</i> Endangered <i>State:</i> Endangered, Fully Protected <i>BLM:</i> None <i>MSCP:</i> None <i>County:</i> None	Two resident populations; one in Central California and one in Northern Arizona/Southern Utah. Sightings of one captive born released female was last seen west of the project area in 2007.	Year round	Not observed. Not expected to occur on-site.
Cooper's hawk	<i>Accipiter cooperii</i>	Fed: None State: None BLM: None MSCP: None County: Group 1	Common resident in trees, especially pines, hard-wood groves and riparian cottonwoods and sycamores.	April-June	Observed on-site.
Golden eagle	<i>Aquila chrysaetos</i>	Fed: BGEPA State: Fully Protected BLM: Sensitive MSCP: Proposed Covered* County: Group 1	Found in open coniferous forest and barren areas, especially in hilly or mountainous regions.	Year round	Observed on-site. A nest was located near the proposed project footprint, approximately 500 ft from the project footprint and within the survey corridor. However, no nests are known to occur on or within 4,000 ft of County land parcels.
Gray vireo	<i>Vireo vicinior</i>	Fed: None State: SSC BLM: Sensitive MSCP: Proposed Covered* County: Group 1	Inhabits desert scrub, mixed juniper or pinyon pine and oak scrub, and chaparral in hot, arid mountains and high scrubland.	Summer	Not observed. Has potential to occur on-site during migration.
Least Bell's vireo	<i>Vireo bellii pusillus</i>	Fed: Endangered State: Endangered BLM: None MSCP: Proposed Covered* County: Group 1	Found in willow dominated riparian habitat.	April 10-July 31	Not observed. Has no habitat on-site.

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
Loggerhead shrike	<i>Lanius ludovicianus</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits open brushy areas, meadows, pastures, orchards, thickets along roads, and hedges.	Year round	Observed on-site.
Long-eared owl	<i>Asio otus</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits dense vegetation adjacent to open grassland or shrub-land, and open forests.	Year round	Incidental observation winter 2007.
Northern harrier	<i>Circus cyaneus</i>	Fed: None State: SSC BLM: None MSCP: Covered* County: Group 1	Found in abandoned fields, upland maritime heaths, wet hayfields, salt marshes, and cattail marshes.	July-February	Observed on-site.
Olive-sided flycatcher	<i>Contopus cooperi</i>	Fed: None State: SSC BLM: None MSCP: None County: Group 2	Found on edges, openings, and natural and human-created clearings adjacent to otherwise relatively dense forests.	Summer	Observed on-site.
Prairie falcon	<i>Falco mexicanus</i>	Federal: None State: None BLM: None MSCP: None County: Group 1	Often found where there are large patches of low vegetation and areas of open ground, vertical cliffs with a rock overhang are preferred for nesting	Year round	Observed on-site.
Purple martin	<i>Progne subis</i>	Fed: None State: SSC (nesting) BLM: None MSCP: Proposed Covered* County: Group 1	Breeds near human settlements where nest houses are provided, especially near water and large open areas.	Summer	Not observed. Has potential to occur on-site.
Rufous-crowned sparrow	<i>Aimophila ruficeps</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in coastal sage scrub and other low growing scrublands.	Year round	Observed on-site.
Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	Fed: Endangered State: Endangered BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits dense trees or thickets near water.	Mid May-mid July	Not observed onsite. No habitat on site. Not expected to occur.

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
Tricolored blackbird	<i>Agelaius tricolor</i>	Fed: None State: SSC BLM: Sensitive MSCP: Covered* County: Group 1	Found in cropland, hedgerows, grassland and herbaceous areas.	April-June	Not observed. Has a low potential to occur on-site for foraging.
Turkey vulture	<i>Cathartes aura meridionalis</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in dry, open country, farmlands, and woodlands. Needs tall trees to roosts in.	Year round	Observed on-site
Vaux's swift	<i>Chaetura vauxi</i>	Fed: None State: SSC BLM: None MSCP: None County: None	Found in mature forest but will also forage and migrate over open country	Summer	Observed on-site.
Vermilion flycatcher	<i>Pyrocephalus rubinus flammeus</i>	Fed: None State: SSC BLM: None MSCP: None County: Group 1	Arid scrub, farmlands, savanna, agricultural areas, and riparian woodland.	March-August	Not observed. Has a low potential to occur on-site.
Western bluebird	<i>Sialia mexicana</i>	Federal: None State: None BLM: None MSCP: None County: Group 2	Woodlands, farmlands, orchards, savannas, riparian woodlands, and burned or disturbed woodlands	Year round.	Observed on-site.
Western Burrowing Owl	<i>Athene cunicularia hypugaea</i>	Fed: None State: SSC BLM: Sensitive MSCP: Proposed Covered* County: Group 1	Nesting habitat consists of open areas with mammal burrows in arid and semi-arid environments.	March-September	Not observed. Has a low potential to occur on-site.
White-tailed kite	<i>Elanus leucurus</i>	Fed: None State: Fully Protected BLM: None MSCP: Proposed Covered* County: Group 1	Riparian woodland, oak groves, or sycamore groves adjacent to grassland..	Year round	Incidental observation** during 2005-2006 avian survey.
Willow flycatcher	<i>Empidonax traillii</i>	Fed: None State: Endangered BLM: None MSCP: None County: None	Breeds in shrubby areas near running or standing water, winters in shrubby clearings with successional growth.	Spring and autumn during migration.	Not observed. No habitat on-site. Two off-site observations in Thing Valley during 2007-2008 avian survey.
Yellow warbler	<i>Dendroica petechia</i>	Fed: None State: SSC (nesting) BLM: None MSCP: Proposed Covered* County: Group 2	Inhabits riparian areas, or strips of riparian habitat in foothills.	March - September	Observed on site

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
MAMMALS					
American badger	<i>Taxidea taxus</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 2	Found in desert habitat and adjacent, above 3000m.	Year round	Not observed on-site. Has low potential to occur
California leaf-nosed bat	<i>Macrotus californicus</i>	Fed: None State: SSC BLM: Sensitive MSCP: None County: Group 2	Inhabits desert riparian, washes, desert scrub, desert succulent shrub, alkali desert scrub, and palm oasis.	Late spring - early fall	Has potential to occur on-site.
Dulzura pocket mouse	<i>Chaetodipus californicus femoralis</i>	Fed: None State: SSC BLM: None MSCP: None County: Group 2	Found mainly in chaparral and sometimes in desert grasslands from sea level to 1,400m (4,600ft)	Year round	Not observed. Has potential to occur on-site.
Fringed myotis	<i>Myotis thysanodes</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in xeric woodlands, desert scrubland, grassland, and sage grass.	Late spring - early autumn	Not observed. Has potential to occur on-site.
Los Angeles little pocket mouse	<i>Perognathus longimembris brevinasus</i>	Fed: None State: SSC BLM: None MSCP: None County: Group 2	Lower elevation grasslands, alluvial sage scrub and coastal sage scrub.	Year round	Not observed. Suitable habitat found on-site.
Long-eared myotis	<i>Myotis evotis</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in brush, woodland and forests habitats up to 9,000 ft (2743 m).	Late spring - early autumn	Has potential to occur on-site.
Merriam's kangaroo rat	<i>Dipodomys merriami</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: None	Inhabits a range of soils and shrubs in low desert and washes.	Year round	Not observed. Expected to occur on-site.
Mountain lion	<i>Felis concolor</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Steep rocky canyons from seal level to 10,000 feet and riparian habitat.	Year round	Observed on-site.
Pallid bat	<i>Antrozous pallidus</i>	Fed: None State: SSC BLM: Sensitive MSCP: Proposed Covered* County: Group 2	Found in rocky outcrop regions where the dominant vegetation consists of scattered desert scrub.	Late spring - early autumn	Has potential to occur on-site.
Palm Springs little pocket mouse	<i>Perognathus longimembris bangsi</i>	Fed: None State: SSC BLM: Sensitive MSCP: None County: None	Found in creosote scrub, desert scrub, and grasslands.	April-September	Not observed. Suitable habitat occurs on-site.

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
Peninsular bighorn sheep	<i>Ovis canadensis nelsoni</i>	Fed: Endangered State: Threatened BLM: None MSCP: Proposed Covered* County: Group 1	Found in steep terrain with rock outcrops, alluvial fans and washes.	Year round	Low potential to occur. Suitable habitat found within 1 mile of project site. Not expected to occur on-site.
Pocketed free-tailed bat	<i>Nyctinomops femorosaccus</i>	Fed: None State: SSC BLM: None MSCP: None County: Group 2	Associated with rugged canyons, high cliffs, and rock outcrops.	Year round/nocturnal	Has potential to occur on-site
Ringtail	<i>Bassariscus astutus</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Desert scrub, chaparral, pine-oak and mixed conifer woodland.	Year round/nocturnal	Not observed. Has potential to occur on-site.
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 2	Typically found in open habitats without dense canopy.	Year round	Observed on-site.
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>	Fed: None State: SCC BLM: Sensitive MSCP: None County: Group 2	Found in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti or areas of dense undergrowth.	Year round	None observed. High potential to occur on-site, requires trapping for detection.
Southern grasshopper mouse	<i>Onychomys torridus ramona</i>	Fed: None State: SCC BLM: None MSCP: Proposed Covered* County: Group 2	Inhabits grasslands and sparse coastal sage scrub habitats	Year round	CNDDDB record on-site. Has potential to occur on-site.
Southern mule deer	<i>Odocoileus hemionus</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Deserts, forest-conifer forest, grasslands, shrubland and chaparral.	Year round	Observed on-site
Spotted bat	<i>Euderma maculatum</i>	Fed: None State: SSC BLM: Sensitive MSCP: None County: Group 2	Highly associated with prominent rock features from arid deserts and grasslands through mixed conifer forests.	Late spring-early fall	Has potential to occur on-site.
Townsend's western big-eared bat	<i>Plecotus townsendii</i>	Fed: None State: SCC BLM: Sensitive MSCP: Proposed Covered* County: None	Found in desert scrub, mixed conifer forest, and pinon-juniper or pine forest habitat.	Late spring-early fall	Not observed. Has potential to occur on-site.

3.4 Biological Resources

Species	Latin Name	Status	Habitat	Survey Time	Notes
Western mastiff-bat	<i>Eumops perotis californicus</i>	Fed: None State: SSC BLM: Sensitive MSCP: None County: Group 2	Found in open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban areas.	Late spring-early fall	Has potential to occur on-site.
Western Small-footed myotis	<i>Myotis ciliolabrum</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in deserts, chaparral, riparian zones, and western coniferous forest.	Late spring-early autumn	Observed on-site.
Western Yellow Bat	<i>Lasiurus xanthinus</i>	Fed: None State: SSC BLM: None MSCP: None County: None	Roosts and feeds in, and near, palm oases and riparian habitats. Known to occur in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Generally roost in palms.	Late spring - early autumn	Has potential to forage on-site.
Yuma myotis	<i>Myotis yumanensis</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in open forests and woodlands with sources of water nearby.	Late spring - early fall	Has potential to occur on-site.

Source: Draft BTR, HDR Engineering, Inc., September 2010

*Listed in County of San Diego draft (East County) MSCP Plan covered species list

**Potentially observed outside the survey corridor or while in transit to and from the site.

Note: Bold-text sensitive species with potential or that have occurred within the proposed project area

Key:

Fed = Federal listing.

State = State listing.

BLM = Bureau of Land Management listing.

MSCP = Multiple Species Conservation Program listing.

CNPS = California Native Plant Society listing.

County = County of San Diego listing.

SOC = Federal Species of Concern

SSC = State Species of Concern

BGPA = Bald and Golden Eagle Act

List 1B.2 = List 1b: Rare, threatened, or endangered in California and elsewhere. 0.2: Fairly endangered in California.

List 2.3 = List 2: Rare, threatened, or endangered in California, but more common elsewhere. 0.3: Not very endangered in California.

List 4.2 = Limited distribution (Watch list). 0.2: Fairly endangered in California.

List 4.3 = Limited distribution (Watch list). 0.3: Not very endangered in California.

List A = Plants rare, threatened or endangered in California and elsewhere.

List B = Plants rare, threatened or endangered in California but more common elsewhere.

3.4.1.4 Jurisdictional Areas

The survey corridor contains Waters of the U.S. as defined by the United States Army Corps of Engineers (USACE) Waters of the State (CDFG) and Regional Water Quality Control Board (RWQCB), and wetlands as defined by the County of San Diego County Resource Protection Ordinance (RPO). USACE jurisdictional wetlands do not occur within the survey corridor. On-site drainages are all ephemeral and contain water flow only during and immediately after storm events. Several United States Geological Survey (USGS) designated blue line streams occur within the survey corridor and a majority of mapped jurisdictional areas consist of the blue-line streams and their tributaries. Mapped drainages typically exhibited an ordinary high water mark (OHWM) due to a change in substrate from loamy sand in the upland areas to sand within jurisdictional areas. Other data recorded included bank height and morphology, substrate type, and all vegetation within the streambed and riparian vegetation adjacent to the streambed. Drainage structure varied from broad channels (>20 feet) with deep vertically incised banks to narrow channels (<2 feet) with low gently sloping banks. In general, on-site drainages were largely unvegetated and the soils consisted of sand.

USACE jurisdictional wetlands are not located within the survey corridor primarily due to a lack of hydric soils and significant hydrophytic vegetation. CDFG jurisdictional (waters) boundaries are measured similarly to USACE jurisdictional boundaries, but extend to the top of the bank to encompass riparian vegetation when present; therefore the CDFG areas represent a higher jurisdictional acreage. The USACE and RWQCB Waters within the project area represent overlap in acreage. Jurisdictional areas, wetland delineation results, and detailed characteristics for each drainage are identified within the Draft Jurisdictional Wetlands Delineation Report located in Appendix G of this environmental document. The total USACE, RWQCB, CDFG, and County jurisdictional waters within the survey corridor are summarized by jurisdiction in **Table 3.4-4**.

Table 3.4-4. Jurisdictional Areas Located within the Surveyed Area

Agency	Jurisdiction (acres)
USACE Wetlands	0.00
USACE Waters of the U.S./ RWQCB Waters of the State	6.58
CDFG Jurisdictional Areas*	19.10
County RPO Wetlands	1.86

Source: HDR Engineering, Inc., Draft Jurisdictional Wetland Delineation, August 2010
 *CDFG jurisdictional area totals include USACE waters of the U.S. acreages.

3.4.1.5 Wildlife Corridors

The proposed project is located in a region or area of connectivity bound by transportation-oriented development with the I-8 to the south, SR-78 to the north, SR-2 to the east, and SR-79 (Sunrise Highway) and Kitchen Creek Road to the west. Within the region’s approximately 418 square mile expanse, roads are the largest obstacles to wildlife movement through the area of connectivity, including the project area. All of the roads and highways within the region have bridges and other areas where wildlife can pass through without crossing the road. The roads vary in the degree to which they are barriers, from the busy four-lane highway of I-8 to stretches of low vehicle traffic on SR-2. The amount of barrier varies with the frequency of travel on the road and the number of available crossings in each portion of the road.

Additional obstacles to wildlife movement in the region include a network of dirt roads and trails and fences and paved roads associated with scattered private properties. Potential water sources for migrating or resident wildlife include: Tule Creek, which runs the length of McCain Valley and drains into Tule Lake at the southern end of the valley; several reservoirs and wells located in the valley, along with numerous unnamed creeks and springs; and Bow Willow Creek, which intersects McCain Valley at the northern end of the proposed project area near Canebrake Road.

The County of San Diego has designated an area of connectivity located within the larger proposed project area as having high sensitivity. The Department of Planning and Land Use (DPLU) wildlife movement modeling of connectivity has suggested that it is an important wildlife linkage within East San Diego County. The area extends north from I-8 and the proposed project. DPLU models only consider areas where the County has some measure of control of development. Other areas, such as tribal lands, are not considered in their long-term habitat connectivity model. The following discussion identifies the informally proposed East County MSCP Plan-designated high sensitivity areas as they occur adjacent to the area of connectivity. This project does not preclude the development of the ECMSCP.

North: At the northern end of the high sensitivity region, South Coast Wildlands (a non-profit group) has proposed creating a linkage corridor between the Peninsular Range and the Anza Borrego Desert. The Tule Wind Project is several miles south of the proposed linkage corridor and would not impede wildlife movement through the corridor. The communities of Julian and Canebrake Canyon occur in the northern portions of this region.

South: The southern border of the proposed project area and the area of connectivity is effectively I-8 for purpose of wildlife movement. This constitutes an east-west barrier for the wildlife corridor within the Peninsular Ranges. However, there are several places where the highway bridges and canyons create passage for wildlife beneath the highway. The USFWS Biological Opinion for the Sunrise Power Link states that endangered Peninsular bighorn sheep have been reported using Devil's Canyon to venture south of the highway, an area where they were thought to be extirpated in the 1980s (USFWS 2009d). It is presumable that other, smaller species are using this canyon and similar passages for traveling between areas north and south of the interstate. South Coast Wildlands have also suggested a Jacumba corridor to Mexico south of the proposed project area.

East: To the east of the proposed project area is an escarpment that drops down into the Anza-Borrego Desert (Carrizo Gorge). Several desert campgrounds occur in this area along SR-2. At this point the habitat transitions from chaparral to desert. While many species habitat areas overlap (mule deer, mountain lion, phainopepla, etc.), the majority of desert wildlife species will not inhabit chaparral habitat and vice versa.

West: West of the proposed project area are the Laguna Mountains. Common species occurring in these mountains are similar to those which occur in the proposed project area. There are many existing camping areas throughout the Laguna Mountains Recreation Area. The Pacific Crest Trail also passes through the westernmost portions of this region.

3.4.2 Regulatory Setting

Federal

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) prohibits anyone without a permit to “take” bald or golden eagles. ‘Take’ is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect,

molest or disturb.” ‘Disturb’ is defined as “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (USFWS 2009c).

Bureau of Land Management Sensitive Species

BLM sensitive species are designated as such by the State Director. These species are not listed as threatened, endangered, or “candidate species” by the federal government or the state of California. The BLM requires that any authorized actions do not jeopardize these species or cause them to become listed as threatened or endangered (BLM 2009a).

Federal Endangered Species Act

Enacted in 1973, the federal Endangered Species Act (ESA) provides for the conservation of threatened and endangered species and their ecosystems. The ESA prohibits the “take” of threatened and endangered species except under certain circumstances and only with authorization from the U.S. Fish and Wildlife Service (USFWS) through a permit under Section 4(d), 7 or 10(a) of the Act. Under the ESA, “take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Migratory Bird Treaty Act

Congress passed the Migratory Bird Treaty Act (MBTA) in 1918 to prohibit the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The prohibition applies to birds included in the respective international conventions between the U.S. and Great Britain, the U.S. and Mexico, the U.S. and Japan, and the U.S. and Russia.

The National Environmental Policy Act

A federal statute requiring the identification and analysis of potential environmental impacts associated with proposed Federal actions before those actions are taken. The intent of NEPA is to help decision-makers make well-informed decisions based on an understanding of the potential environmental consequences and take actions to protect, restore, or enhance the environment. The process for implementing NEPA is outlined in Title 40 of the Code of Federal Regulations (CFR), Parts 1500–1508, *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*. NEPA established the Council on Environmental Quality (CEQ) that was charged with the development of implementing regulations and ensuring Federal agency compliance with NEPA. The CEQ regulations define major Federal actions to include adoption of official policy (i.e., rules and regulations), adoption of formal plans, adoption of programs, and approval of specific projects (40 CFR 1508.18). The CEQ regulations mandate that all Federal agencies use a prescribed structured approach to environmental impact analysis.

As a federal agency, the Bureau of Land Management (BLM) must meet NEPA requirements whenever it is the BLM’s decision that would result in an impact on the human environment, even if the impact would be beneficial and regardless of who proposes the action or where it would take place (40 CFR 1508.18). Other entities (i.e., non-federal organizations and individuals; federal, state, and local agencies; and tribal

entities) that submit applications or proposals to the BLM for use or development of resources on BLM-administered lands are subject to NEPA analysis.

Various types of environmental analysis documents can be used to meet NEPA requirements, including environmental impact statements (EISs) and environmental assessments (EAs) (40 CFR 1506.6(b)). If it is unclear whether an action would result in a significant impact, an EA would be prepared (40 CFR 1508.9(a)). If the analysis in the EA determines the action would not result in a significant impact, a Finding of No Significant Impact statement would be prepared (40 CFR 1508.13). If the analysis in the EA determines the action would result in a significant impact, an EIS would be prepared (40 CFR 1502.1). Upon completion and approval of the Final EIS, a decision on whether or not to carry out the action is documented in a record of decision (ROD) (40 CFR 1505.2).

The proposed project and the East County Substation project are linked together into a single environmental document) for the NEPA and CEQA processes. This document has been requested by the California Public Utilities Commission (CPUC). The proposed project is a separate project; however, it is dependent on the completion of upgrades to the Boulevard Substation project to support the off-site energy transmission. The upgrade of the Boulevard Substation is part of the East County Substation project. Only the NEPA and CEQA processes have been linked to the proposed project and East County Substation project; all other permits will be acquired by each project independently.

Section 401 Water Quality Certification (Clean Water Act)

The Clean Water Act protects water quality by regulating the dumping or flow of pollutants into streams, lakes, and rivers. A water quality certification, obtainable through California RWQCB, must be obtained in order to receive a 404 permit or be authorized under the 404 nationwide permits (USEPA 2009).

Section 404 Permit (Clean Water Act)

The Clean Water Act establishes a program to regulate the discharge of dredge and fill material into waters of the U.S. including wetlands. Activities regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry. Either an individual 404b permit or authorization to use an existing USACE Nationwide Permit will need to be obtained if any portion of the construction requires fill into a river, stream, or stream bed that has been determined to be a jurisdictional waterway. When applying for a permit a company or organization must show that they would avoid wetlands when practicable, minimize wetland impacts, and provide compensation for any unavoidable destruction of wetlands (CWIS 2009).

State

Bureau of Land Management Sensitive Species

BLM sensitive species are designated as such by the State Director. These species are not listed as threatened, endangered, or “candidate species” by the federal government or the State of California. The BLM requires that any authorized actions do not jeopardize these species or cause them to become listed as threatened or endangered (BLM 2009a).

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code §§2050, et seq.) generally parallels the main provisions of the federal ESA and is administered by the CDFG. Unlike the federal ESA, the CESA gives the same protection to listed plants as it does listed animals and gives candidate species protection as well. Any action must not jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat (CERES 2007). The CDFG is authorized to issue permits for the incidental take of CESA listed species of plants and animals as long as the following guidelines are met:

1. The take occurs incidentally to an authorized activity.
2. Any environmental impacts to listed species are fully mitigated and/or minimized.
3. Measures taken to mitigate and minimize impacts are proportional to the impact itself, can be reasonably implemented, and maintain the applicant's objectives.
4. Enough funding is available to implement the mitigation and minimization efforts.
5. The proposed activity would not further endanger the listed species.
6. A plan to minimize and mitigate impacts should include measures the agency would take, such as employee education, available funds for mitigation, and compliance surveys.
7. No permit would be given for take of fully protected species as listed by the CDFG Codes (CDFG Codes 2009).

An incidental take permit is required for any project which may impact state listed species or their habitat.

California Department of Fish and Game Code

The CDFG Code regulates the taking or possession of birds, mammals, fish, amphibians and reptiles, as well as natural resources such as wetlands and waters of the state. It includes the California Endangered Species Act (CESA); Sections 2050-2115) and Streambed Alteration Agreement regulations (Section 1600-1616), as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife.

The California Fish and Game Code (CFG) is a collection of laws concerning wildlife, habitat, and biological resources including several sections that affect the construction, maintenance, and operation of the proposed project. These regulations reiterate the importance of avoiding "take" of any protected wildlife.

Sections 3500 to 3857 of the CFG prohibit the take or destruction of a bird, their nests, or eggs. Section 3503 prevents the taking or destroying of nest or eggs of any bird, except as specifically permitted. Section 3503.5 prevents the taking, possessing, or destroying of birds of prey or their eggs. Section 3511 prohibits the taking or possession of fully protected birds including golden eagles and bald eagles. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

California Environmental Quality Act

CEQA requires state and local agencies to identify impacts to the environment that might be caused by their actions. Projects undertaken by public or private agencies must comply with this act if there is any

approval given by a state agency (CEQA 2009). CEQA is a self-regulating statute; however, agencies that do not comply may face litigation from the public. In addition, the CPUC regulates private utility companies serving California in an effort to make these utilities reliable and safe (CPUC 2009). At the request of the local community, CEQA documents will be issued jointly for the proposed project with the ECO Substation Project. This process has been linked because the proposed project is dependent upon upgrades being completed for the ECO Substation Project.

CEQA is a statute that requires state agencies to provide information about environmental impacts of their actions and requires that actions be taken to avoid, minimize, or mitigate those impacts. All listed species are protected as well as candidates and those listed by the California Native Plant Society (CNPS) (Lists 1A, 1B, and 2) and CDFG (CEQA 2009). Any plants listed by the CNPS existing within the proposed project area will be avoided if possible.

California Native Plant Protection Act

California has the highest number of rare plants of any state in the nation (CDFG 2009a). The California Native Plant Protection Act (CNPPA) was established to preserve, protect and enhance rare and endangered plants in California. It prohibits the take of listed plants from the wild and allows the CDFG to salvage any rare plants that would otherwise be destroyed (CNPPA 1977).

California Streambed Alteration Agreement

The CDFG Code (Section 1602) requires an entity to notify CDFG of any proposed activity that may substantially modify a river, stream, or lake. Notification is required by any person, business, state or local government agency, or public utility that proposes an activity that would: (1) substantially divert or obstruct the natural flow of any river, stream or lake; (2) substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the floodplain of a body of water. A detailed project description, including maps, must be provided to the department (Justia 2009). A 1602 streambed alteration agreement must be approved before any activities that may affect state waters can begin.

Local

Biological Mitigation Ordinance

The County natural resources are regulated by the Biological Mitigation Ordinance (BMO), which outlines the specific criteria and requirements for projects. The BMO (adopted 1998) between the County and Wildlife Agencies is the document used to implement the policies for regional natural resource management.

County of San Diego Guidelines for Determining Significance (Biological Resources).

The County of San Diego's Land Use and Environmental Group has created a set of guidelines for review pursuant to the California Environmental Quality Act. The County has divided sensitive species into groups based on their rarity and known threats. Plant species are divided into Groups A through D and animals are divided into Groups I and II. Groups A and B plants and Group I animals include those that

have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirements that must be met. Groups C and D plants and Group II animals include those species that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action. These species tend to be prolific within their suitable habitat types. Impacts to sensitive species listed in the Guidelines are considered significant and require mitigation.

County of San Diego Major Use Permit

A Major Use Permit is required to ensure the proposed project is in compliance with local zoning and land planning agencies. Copies of the permit application will be sent to the County Community Planning Group, the Design Review Board, and other affected public agencies. A Major Pre-application Conference and an appointment with a DPLU Zoning Information counter staff are required as well. The granting or denial of Major Use Permits is under the jurisdiction the County of San Diego Planning Commission.

County of San Diego Zoning Ordinance

Land may also have a zoning designation or Special Area Regulation with certain restrictions pursuant to the Zoning Ordinance. For instance, lands may have a zoning designation of S81 Ecological Resource Area Regulations. The few uses allowed on lands with this designation are subject to strict provisions and limitations. The Zoning Ordinance also applies other Special Area Regulations with specific restrictions and provisions, including designator G (Sensitive Resource), R (Coastal Resource Protection Area) and/or V (Vernal Pool Area).

East County Multiple Species Conservation Plan (ECMSCP)

The County of San Diego is working with USFWS, CDFG, and consultant teams to develop and implement conservation planning. Authority for this process comes from the California Natural Community Conservation Planning (NCCP) Act and section 10(a) of the federal ESA that addresses habitat conservation plans (County 2009). These agencies are in the early stages of preparing the third of three County sub-area plans for the unincorporated eastern portions of the county. The draft ECMSCP Plan study area covers 1,551,600 acres and is bounded on the west by Ramona and the state park areas of Descanso and Palomar Mountain, on the north by Riverside County, on the east predominantly by Imperial County, and on the south by Mexico. Indian Reservations are excluded from the study area. The ECMSCP will cover several backcountry communities, including Boulevard, and the open space areas that surround them. The purpose of the ECMSCP is to protect key sensitive plant and animal populations and habitats within the County. The overall effect of the ECMSCP is the creation of a large connected preserve that would address the regional habitat needs for a number of species. Currently, the ECMSCP proposes to cover up to 254 species (County 2009). Proposed animal and plant species included on the draft ECMSCP list have been discussed as part of this report. A draft of this plan has not yet been completed and no approved plan has been adopted to date.

The ECMSCP and BMO provide specific criteria for project design, impact allowances and mitigation requirements. The criteria in this document, Guidelines for Determining Significance for Biological Resources, do not replace those required by the ECMSCP. All projects within the ECMSCP boundaries must conform to both the ECMSCP requirements and the County's policies under the California Environmental Quality Act (CEQA).

General Plan Open Space and Conservation Elements, Community and Subregional Plans

The Open Space Element and the Conservation Element of the General Plan provide guiding principles for the conservation of biological resources. The Open Space Element outlines the goals and policies pertaining to each type of open space, not all of which are for the preservation of biological resources. The Conservation Element, specifically Chapters 3 and 4 addresses County policies relating to water, vegetation and wildlife habitat. Appendix K of the Conservation Element outlines the County's RCA, which are further described and delineated in each of the Community and Subregional Plans. Each RCA has been designated as such for a purpose specific to that area. When a site is located within a mapped RCA, the project must comply with the relevant policies for that RCA (i.e., avoidance of oaks, etc.).

San Diego County Resource Protection Ordinance (Section 86.601)

The RPO was adopted in 1989 and amended in 1991 and 2007. The RPO restricts to varying degrees impacts to various natural resources including wetlands, wetland buffers, floodplains, steep slopes, sensitive habitat lands and historical sites. Certain permit types are subject to the requirement to prepare Resource Protection Studies under the RPO.

The RPO restricts uses in wetlands as defined by the ordinance. Aquaculture, scientific research, wetland restoration projects, limited removal of diseased or invasive plant species, and limited road-, driveway- or trail-crossings may be allowed when specific findings are made for these uses. In addition, the ordinance requires that a wetland buffer be provided to further protect the wetland resources. Improvements necessary to protect the adjacent wetlands and those uses allowed within the actual wetland are the only allowed uses within the buffer. For more explicit information on these requirements refer to RPO.

The RPO also limits impacts to sensitive habitat lands. Sensitive habitat lands include unique vegetation communities and the habitat that is either necessary to support a viable population of sensitive species, is critical to the proper functioning of a balanced natural ecosystem, or which serves as a functioning wildlife corridor. Habitats considered sensitive or significant under CEQA are not necessarily considered to be RPO sensitive habitat lands. Examples of RPO sensitive habitat lands include, but are not limited to:

- Lands that include populations of sensitive species (such as County Group A plants, Group I wildlife species, state- and federally-listed species).
- Lands that contain unique vegetation communities, such as maritime succulent scrub, southern coastal bluff scrub, coastal and desert dunes, calcicolous scrub, maritime chaparral, valley sacaton grassland, hardpan and claypan vernal pools, montane meadows, mesquite bosque, native grassland, and Torrey pine forest.

Examples of lands that would not be considered RPO sensitive habitat lands include, but are not limited to: Coastal sage scrub, oak woodland, chaparral, and non-native grasslands, provided that these habitats: (a) do not include populations of sensitive species); (b) are not critical to a balanced ecosystem; or (c) are not part of a functioning wildlife corridor.

Impacts to RPO sensitive habitat lands shall only be allowed when: (a) all feasible measures have been applied to reduce impacts; and (b) mitigation provides an equal or greater benefit to the affected species. The ordinance includes the provision that when “the extent of environmentally sensitive lands on a particular legal lot is such that no reasonable economic use of such lot would be permitted by these regulations, then an encroachment into such environmentally sensitive lands to the minimum extent necessary to provide for such reasonable use may be allowed.”

3.4.3 Environmental Consequences/Impact Analysis

National Environmental Policy Act Significance Criteria

Portions of the project are located on BLM and Tribal lands subject to NEPA guidelines.

According to the BLM Wind Energy Development Final Programmatic EIS, the construction of wind projects could have adverse ecological effects occur from:

- Erosion and runoff;
- Fugitive dust;
- Noise;
- The introduction and spread of invasive vegetation;
- Modification, fragmentation, and reduction of habitat;
- Mortality of biota;
- Exposure to contaminants; and
- Interference with behavioral activities.

According to the BLM Wind Energy Development Final Programmatic EIS, wind projects have the potential to impact avian and bat species due the risk of collisions with wind turbines and power lines and the temporary or permanent loss of habitat. Impacts could occur to terrestrial and riparian vegetation, sensitive plant species, and desired plant communities from the loss of vegetative resource, increase in non-native invasive species, and change in cover species composition and structure, including density and vegetation.

California Environmental Quality Act Significance Criteria

CEQA requires that biological resources be considered when assessing the environmental impacts resulting from proposed actions. CEQA does not specifically define what constitutes an “adverse effect” on a biological resource. Instead, lead agencies are charged with determining what specifically should be considered an impact.

The significance criteria for biological impacts for this project are based primarily on the *CEQA Guidelines* Appendix G and the County of San Diego’s Guidelines for Determining Significance, Biological Resources (County of San Diego 2009c), and are noted below. The significance criteria identified below were supplemented in the BTR by more specific criteria for each biological resource category (e.g., Special Status Species, Riparian Habitat or Sensitive Natural Community). An impact would be considered significant and require mitigation if project construction or maintenance of project facilities during project operations would result in any of the following criteria being met:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFG, or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFG or USFWS;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

3.4 Biological Resources

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances;
- Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Communities Conservation Plan (NCCP), or other approved local, regional, or state HCP.

The following section addresses direct and indirect impacts to biological resources, per *CEQA* guidelines and County of San Diego Guidelines for Determining Significance, due to the construction, operation and maintenance, and decommissioning of the proposed project.

This impact analysis focuses on the proposed project components with the proposed transmission line, and proposed O&M /Substation facility. The project proposes the following permanent impacts would also result from the following components: (1) 400-foot diameter area for each turbine location; (2) an 8-foot diameter area for each 138 kV transmission line pole; (3) a 2-foot diameter for each collector pole; (4) 16 to 20-foot (permanent) access road along linear turbine strings, (5) improvements to existing roadways (20 to 36 feet); (6) 10 acres for the placement of the O&M Substation facility; and (7) 1,600 square feet for two meteorological towers and a SODAR unit. **Table 3.4-5** presents the project components, including the surface area per feature disturbed per the project feature. For the purpose of this analysis, the proposed project with deviant substation acreage was used since that represents the greatest disturbed area.

The proposed project would result in a significant impact if it would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

Construction

Direct Impacts

Wildlife and plants that could be affected by development of the proposed project include species that have been designated as CDFG listed Species of Special Concern (SSC), BLM species listed as sensitive, and species listed under the East County Municipal Species Conservation Plan (ECMSC) as being “covered.” The QCB is the only state or federal listed species to be potentially impacted by the project. Any impacts will be mitigated so that no adverse effects will occur to the species. A QCB habitat assessment was conducted in 2008, which concluded that the project area contains vegetation potentially suitable to support QCB, although the lack of suitable soil characteristics reduces habitat suitability for QCB. A focused survey for QCB was conducted in portions of the survey corridor in 2009 by Dudek, Inc, which also confirmed the lack of host plant species and appropriate soils. The study area was identified to support a number of nectar sources, although the QCB will utilize a number of relatively widespread plants as nectar source and the presence of these nectar sources is not a strong indicator of suitable habitat.

Table 3.4-5. Proposed Project Estimate of Surface Land Disturbance

Project Component	Quantity*	Area Disturbed per Feature	Disturbance Type	Proposed Project	Proposed Project with Deviant Substation
Turbine	134	400-foot diameter	Perm	386.57	386.57
Transmission Line	1	24-foot width	Temp	26.37	28.33
Transmission Line Poles	108 (116)	50 feet x 150 feet	Temp	18.26	19.71
Transmission Line Poles	108 (116)	8-foot diameter	Perm	0.12	0.13
Overhead Collector Line	1	24-foot width	Temp	25.12	27.36
Collector Poles	232 (250)	2-foot diameter	Perm	0.02	0.02
Underground Collector Line	1	24-foot width	Temp	83.09	84.17
New Roads	89 (90)	36 feet	Temp	60.43	61.23
New Roads	89 (90)	20 feet (28 ft. on County lands)	Perm	91.00	92.00
Improvements to Existing Roads	21	16-20 feet	Temp	23.00	23.00
Improvements to Existing Roads	21	20 feet (28 ft. on County lands)	Perm	74.10	74.10
Collector Substation	1	5 acres	Perm	5.00	5.00
O&M Facility	1	5 acres	Perm	5.00	5.00
Parking Lot	1	10 acres	Temp	10.00	10.00
Batch Plant	1	5 acres	Temp	5.00	5.00
Staging Area (Laydown Areas)	19	2 acres	Temp	38.00	38.00
Met Tower	2	700 sf	Temp	0.032 (1,400 sf)	0.032 (1,400 sf)
Met Tower	2	900 sf	Perm	0.041 (1,800 sf)	0.041 (1,800 sf)
SODAR	1	700 sf	Temp	0.016 (700 sf)	0.016 (700 sf)
SODAR	1	900 sf	Perm	0.021 (900 sf)	0.021 (900 sf)
Totals	Acres Disturbed (Temporary)			223.6	229.9
	Acres Disturbed (Permanent)			541.7	542.7
	Total Disturbed Area			765.3	772.7

Source: Draft BTR, HDR Engineering, Inc., September 2010

* () = the quantity utilizing the Deviant Substation

A final QCB protocol survey was conducted in May 2010. Combined HDR and Dudek Inc. surveys had assessed 3,419 acres of the survey corridor for QCB habitat suitability. Of the total number of acres assessed 558 (approximately 16 percent) were excluded as not being suitable for QCB habitat. A GIS review of post-habitat assessment mapping revealed that portions of the survey corridor (approximately 1,435 acres) which were thought to have been assessed during the 2008 assessment period for QCB habitat suitability were not within the current survey corridor. During the 2010 QCB focused surveys, HDR biologists documented the presence of QCB host plants Chinese houses and thread-leaved bird's beak, in addition a single adult QCB was recorded within the survey corridor on April 20, 2010. Sensitive botanical and zoological species with the potential to be found on-site are located in **Table 3.4-1** and **Table 3.4-2**.

Construction of the proposed project and its ancillary facilities would impact plants and wildlife (including birds covered under the MBTA) through the alteration, fragmentation, and loss of habitat

3.4 Biological Resources

located within McCain Valley. Turbines, transmission line, and the O&M facility site will require development which may include habitat loss or alteration. Short-term construction related activities may impact plants and wildlife by disrupting habitat with the establishment of construction staging areas; however, temporarily impacted areas will be revegetated after construction is complete to restore habitat and prevent erosion. Direct impacts to vegetation communities are discussed further in the significance criteria later in this section.

Development of the project site will include the construction of new gravel or dirt roads which are not likely to divide habitat and induce fragmentation of habitats. New roads would be similar in size to dirt portions of McCain Valley Road. While fragmentation is a potential impact of the proposed project, construction is considered a temporary impact and wildlife activity will resume upon completion and would not likely be affected by proposed roads.

Clearing and grubbing construction activities could directly impact wildlife (e.g., reptiles, small mammals, and young). Ground nesting birds and animals that utilize burrows may also be directly impacted by clearing and grubbing activities (BLM 2005). Species that are capable of avoiding initial clearing may relocate to adjacent habitats that are unable to support the subsequent influx due to construction (BLM 2005). The determination of affect for injury and mortality would be dependent on the number and type of species present at the site and the amount of habitat that would be disturbed (BLM 2005). In addition, the time of year that construction activities take place (such as the breeding season for a species) can have a direct affect on wildlife resulting in injury and mortality (BLM 2005).

Construction activities can increase the potential for fire because of the increase in human activity that would be associated with this project. Fire can have a permanent adverse affect through direct mortality, reduced habitat, and reduced quality of habitat (BLM 2005).

Two types of direct impacts could affect avian species at the site: collisions with the wind turbines causing mortality; and permanent loss of habitat in the proposed project footprint. Studies have been conducted in order to determine how turbine placement affects impacts on avian species. The majority of avian species observed during surveys of the proposed project are protected under the MBTA (with the exception of game species, non-native species, and wrentit). Corvids (crows and ravens) were the most commonly observed group of birds within the proposed project area, followed by raptors and songbirds (Hurley 2008). Additionally, the proposed project would result in adverse effects through the permanent removal of nesting, roosting, and foraging habitat currently utilized by birds protected under the MBTA. A maximum of 542.7 acres of construction footprint would be permanently impacted by construction, of which an estimated approximately 49 acres are classified as agricultural, disturbed, or developed. As indicated previously, raptor use is relatively low compared to other wind project areas in the United States, and raptor mortality has decreased within the project area over the past two conducted surveys.

A Golden Eagle survey was conducted April 2, 2010. A helicopter carrying experienced raptor surveyors visited all known eagle territories and suitable nest sites within a 10-mile radius of the proposed project. Six of the 10 territories had adult eagles present. Three territories had active nests which contained females incubating eggs. The single survey provides information only on the number of occupied territories. It does not provide productivity or the use of the project impact extent as a foraging area or as a migratory route by eagles. These are data identified as material that may be required in applying for an Eagle Act Permit.

The project will comply with the County of San Diego Golden Eagle setback. The active nests are not located within the proposed project area or within 4,000 feet of the proposed project area and would not be impacted by implementation of the proposed project.

Sensitive Botanical Species

During vegetation surveys conducted in November and December 2009, and January 2010, suitable habitat was identified as having the potential to support sensitive botanical species. Special status plant species that have been observed within the project area and would likely be impacted include: desert beauty, Jacumba milkvetch, Jacumba monkeyflower, Palomar monkey flower, Payson's jewel flower, southern jewelflower, sticky geraea, Laguna Mountain alumroot, San Diego hulsea, Mountain Springs bush lupine, Oceanblue larkspur, and Tecate tarplant. Focused rare plant surveys are currently being conducted, during the appropriate blooming periods for sensitive botanical species.

To determine project effects on sensitive species, known acreages of potential habitat (and in the case of some rare plants, the known numbers of individuals) within the survey corridor were compared to the acres of available habitat (or numbers of individuals) within the proposed project footprint. The proposed project footprint comprises 773 acres of impacts (230 temporary and 543 permanent) within the 4,952-acre survey corridor. The construction footprint (impact extent) makes up approximately 15.6 percent, (4.6 percent temporary and 11 percent permanent impacts) of the total surveyed area (survey corridor) and less than 5 percent of the total project area. All impacts to rare plants for the purpose of analysis and mitigation are being treated as permanent impacts, including percentages are shown in **Table 3.4-6**.

No federal or state threatened or endangered plants have been observed and are not expected to occur in the survey corridor, and none are expected to be temporarily impacted. The majority of identified species are listed under the BLM, MSCP, CNPS, and County. Construction of the proposed project will temporarily impact sensitive vegetation communities where several other special status plant species are known to occur. Focused rare plant surveys have been conducted and one is scheduled to be conducted beginning in October to document locations of special status plant species populations will facilitate avoidance, minimization, and mitigation measures to reduce impacts to these species.

Construction activities could adversely affect sensitive plant species through direct impacts such as vegetation removal and indirect impacts such as excessive fugitive dust loads from construction activities. Other potential sources of permanent impacts to sensitive plant species include the introduction of invasive species and increased risk of fire. The types of impacts to special status plant species anticipated during the construction and operation of the proposed transmission line would not be substantially different than those impacts anticipated within all of the alternatives.

Sensitive Zoological Species

Several special status wildlife species have been observed within the project area and would likely be permanently adversely affected. The vegetation communities that support such sensitive wildlife could be temporarily and permanently impacted by project implementation. Impacts to vegetation communities will be discussed further in the following significance criteria discussion.

Federally-listed or federally-protected species with potential for impact include Quino checkerspot butterfly, Peninsular bighorn sheep, and golden eagle.

Table 3.4-6. Potential Sensitive Plant Species Occurring within the Proposed Project Survey Corridor and Potential Impacts

Species	Scientific Name	Status	Habitat	Plant Species Impact
Desert beauty	<i>Linanthus bellus</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 2.3 County: List A	Found in high desert chaparral, usually in broad sandy openings.	Of the estimated 340,322 individuals observed on-site, approximately 61,062 are expected to be permanently impacted or 17.9 percent of the observed individuals within the survey corridor.
Jacumba milkvetch	<i>Astragalus douglasii</i> var. <i>perstrictus</i>	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* CNPS: List 1B.2 County: List A	Found in chaparral, valley grasslands, and foothill woodlands.	Of the estimated 9,113 individuals observed on-site, approximately 496 are expected to be permanently impacted or 5.4 percent of the observed individuals within the survey corridor.
Jacumba monkey flower	<i>Mimulus aurantiacus</i> var. <i>aridus</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS List: None County: None	Found among large rock in chaparral.	Of the 36 individuals observed, zero is expected to be permanently impacted.
Laguna Mountain alumroot	<i>Heuchera brevistaminea</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 1B.3 County: List A	Found in rocky outcrops in montane chaparral.	Numbers of plants were difficult to determine due to accessibility. Of the 401 bloom spikes observed from three colonies to date, all are expected to be impacted from implementation of the proposed project. This represents 100 percent of the observed individuals within the survey corridor.
Mountain Springs bush lupine	<i>Lupinus excubitus</i> var. <i>medius</i>	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* CNPS: List 1B.3 County: List A	Found in pinyon juniper woodland and Sonoran Desert scrub at higher elevations.	Of the 435 individuals that have been observed, 91 are expected to be permanently impacted or 20.1 percent within the survey corridor.
Oceanblue larkspur	<i>Delphinium parishii</i> ssp. <i>subglobosum</i>	Fed: None State: None BLM: None MSCP: None CNPS: List 4.3 County: List D	Creosote brush scrub, chaparral, Sonoran desert scrub and pinyon-juniper woodlands and at elevations of 1,968 to 5,905feet.	Of the 12,533 individuals observed, approximately 1,251 are expected to be permanently impacted or 10 percent of the individuals within the survey corridor.
Palomar monkey flower	<i>Mimulus palmeri</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 4 County: List D	Lower montane coniferous forest and chaparral.	Of the estimated 4,177 individuals observed on-site, approximately 246 are expected to be permanently impacted or 5.9 percent of the individuals within the survey corridor.

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Species	Scientific Name	Status	Habitat	Plant Species Impact
Payson's jewel flower	<i>Caulanthus simulans</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 4.2 County: List D	Grows in sheephead rocky fine sandy loam.	Of the estimated 81,767 individuals observed, approximately 10,272 are expected to be permanently impacted or 12.6 percent of the individuals within the survey corridor.
San Diego hulsea	<i>Hulsea californica</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 1B County: List A	Found in montane coniferous forest and lightly disturbed chaparral.	Of the estimated 14,790 individuals observed, approximately 5,946 are expected to be permanently impacted or 40.2percent of the individuals within the survey corridor.
Southern jewel-flower	<i>Streptanthus campestris</i>	Fed: None State: None BLM: None MSCP: None CNPS: List 1B.3 County: List A	Found in juniper woodland or high desert transitional chaparral.	Of the 366 individuals observed, approximately 162 are expected to be permanently impacted, or 44.3 percent of the individuals within the survey corridor.
Sticky geraea	<i>Geraea viscida</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* CNPS: List 2.3 County: List B	Found in high desert chaparral openings.	Of the 8,174 individuals observed, approximately 704 are expected to be permanently impact, or 8.6 percent of the individuals within the survey corridor.
Tecate tarplant	<i>Deinandra floribunda</i>	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* CNPS: List 1B.2 County: List A	Associated with sandy washes in the high desert.	Focused rare plants for this species are scheduled for October 2010.

Source: Draft BTR, HDR Engineering, Inc., September 2010

A single adult QCB, which is listed as a federally listed endangered animal species, was observed in April of 2010. Potential direct permanent impacts to this species include the risk of direct injury and mortality from construction activities, turbine operation, and transmission line infrastructure. Permanent impacts to 427 acres of potential suitable QCB habitat are expected as a result of the proposed project. Permanent impacts would occur to approximately 23.6 acres of presumed occupied QCB habitat within the survey corridor.

Peninsular bighorn sheep were not observed within the survey corridor. There is a very low potential for Peninsular bighorn sheep to occur within the proposed project area because there is no suitable habitat in the project survey corridor. Direct permanent impacts to this species are not anticipated. However, temporary construction noise associated with use blasting may potentially impact bighorn sheep. At a distance of 1,575 feet (approximately one-third of a mile) the unshielded drill rig noise emissions is approximately 60 dBA Leq. The drill rigs, without mitigation, have a small potential to cause temporary noise impacts if used less than 0.3 miles from Peninsular bighorn sheep critical habitat. However, even

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if used this close impacts are unlikely, because the closest documented individual recorded in the last 70 years was 0.79 mile from the action area. All sites that require blasting within a half-mile of Critical Habitat Unit 3 would be identified as sites where blasting could potentially affect peninsular bighorn sheep. Prior to any drilling or blasting east of McCain Valley Road biological monitors would confirm that no peninsular bighorn sheep were present within one-third of a mile of the area designated for blasting, in order to avoid harassment or disturbance impacts from blasting. Therefore, temporary or permanent impacts to Peninsular bighorn sheep habitat are not anticipated. Consultation with USFWS to determine whether any project effects may affect this species to the species is ongoing.

Permanent and temporary direct impacts would occur from removal of existing infrequently used golden eagle foraging habitat. Although mortality may occur from strikes with turbines, the potential for such strikes is low. There are no golden eagle nests present within 4,000 feet of any project development on lands within the County of San Diego BMO regulated parcels. Impacts to golden eagle foraging habitat will be mitigated through provision of habitat based mitigation. Mitigation measures and design considerations for birds protected by the MBTA include implementation of an Avian Protection Plan, avoiding excessive noise, use of underground transmission lines when possible, and other design considerations. For special status species, impacts will be mitigated through habitat based mitigation requirements. Measures will also be taken to minimize/avoid light and noise impacts per the BLM Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the western U.S.

No other federally listed or federally protected species have been identified during any of the surveys completed to date.

The proposed project would also impact sensitive species that have been designated as CDFG-listed State Species of Concern (SSC), BLM species listed as sensitive, and/or species listed under the proposed ECMSCP as being “proposed covered.” Special status wildlife species that have been observed within the project area and have potential to be impacted include: western spadefoot toad, coast (Blainville’s) horned lizard, coast patch nosed snake, coastal rosy boa, Cooper’s hawk, golden eagle, loggerhead shrike, long-eared owl, northern harrier, olive-sided flycatcher, prairie falcon, rufous-crowned sparrow, turkey vulture, Vaux’s swift, western bluebird, yellow warbler, San Diego black-tailed jackrabbit, and the Western small-footed myotis.

The proposed project may result in impacts to the following County Group I animal species: Quino checkerspot butterfly, Cooper’s hawk, golden eagle, loggerhead shrike (SSC), northern harrier (SSC), prairie falcon, rufous-crowned sparrow, and turkey vulture which have all been observed in or near the project survey area. Long-eared owl (SSC) and white-tailed kite were potentially observed near the project area, but may have been outside the survey corridor and project area; Bell’s sage sparrow, San Diego banded gecko and gray vireo (SSC) were not observed during surveys, however potential habitat for these species exists on-site; alkali skipper, purple martin (SSC), tricolored blackbird (SSC), vermilion flycatcher (SSC), and western burrowing owl (SSC) were not observed during avian surveys and have very low potential to occur on-site.

Echolocation analysis has determined that bat species including California leaf nosed bat, fringed myotis, long-eared myotis, pallid bat; spotted bat, Townsend’s western big-eared bat, western mastiff bat, and Yuma myotis may also be present in or near to the proposed project. In addition to these species, several other special status species have the potential to occur within the proposed project area and may be permanently impacted by the project. Sensitive species with the potential to occur or have occurred within the proposed project area, including the impacted habitat and impacts is presented in **Table 3.4-7**.

Table 3.4-7. Potential Sensitive Zoological Species Occurring within the Proposed Project Survey Corridor and Potential Impacts

Species	Latin Name	Status	Habitat	Habitat Impact	Species Impact
INVERTEBRATES					
Quino Checkerspot Butterfly	<i>Euphydryas editha quino</i>	Fed: Endangered State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub. Needs native species of plantain as host plant.	Approximately 23.6 acres of suitable QCB habitat is within .62 mile of the 2010 QCB observation is presumed occupied and would be permanently impacted.	Potential direct permanent and temporary impacts to this species include the risk of direct injury and mortality from construction activities, turbine operation, and transmission line infrastructure.
AMPHIBIANS					
Western Spadefoot Toad	<i>Scaphiopus hammondi</i>	Fed: None State: None BLM: Sensitive MSCP: Proposed Covered* County: None	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains.	No cattle tanks, vernal pools, or other open water areas will be impacted within the project footprint.	Limited potential for this species to be impacted by the proposed project.
REPTILES					
Coast horned lizard	<i>Phrynosomablainvillei</i>	Fed: None State: SSC BLM: Sensitive MSCP: None MSCP: None County: Group 2	Many native habitats usually in association with harvester ants.	Approximately 4.314.7 acres of the habitat in the survey corridor available to this species will be either permanently or temporarily impacted by the project. Permanent impacts to 614.4 acres (10.9 percent of the project corridor) of potentially suitable habitat within the survey corridor are expected to result from implementation of the proposed project.	Potential direct and temporary impacts due to loss of habitat from construction activities.

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Species	Latin Name	Status	Habitat	Habitat Impact	Species Impact
				Temporary impacts to 220.2 acres of potentially suitable habitat are expected, and represent 5.1 percent of suitable coast horned lizard habitat within the survey corridor.	
Coast patch nosed snake	<i>Salvadora hexalepis virgulata</i>	Fed: None State: Species of Concern BLM: None MSCP: Proposed Covered* County: Group 2	Inhabits semi-arid brush and chaparral in canyons, rocky hillsides and plains. Vegetation communities may occur in semi-air chaparral and scrub, non-native grassland, and open coast live oak woodland.	Of the estimated 4,314.7 acres of semi-arid shrubland habitat that occurs within the survey corridor, permanent impacts are estimated to be 468.8 acres, or 10.9 percent of the proposed project. Temporary impacts to 220.2 acres, or 5.1 percent.	Direct permanent and temporary impacts due to loss of habitat from construction activities, turbine and transmission line maintenance.
Coastal Rosy boa	<i>Charina trivirgata</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in arid scrublands, semi-arid shrub-lands, rocky shrub-lands, rocky deserts, canyons, and other rocky areas	Of the estimated 614.4 acres of potential rocky habitat within the survey corridor, permanent impacts to rosy boa habitat include 77.3 acres, or 12.6 percent impacted by implementation of the proposed project. Temporary impacts to 23.8 acres, or 3.9 percent.	Potential direct permanent and temporary impacts to this species include the risk of direct injury and mortality from construction activities, turbine and transmission line maintenance.
Common chuckwalla	<i>Sauromalus ater</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 2	Rocky deserts and outcrops in southern California at elevations from sea level to 4500 feet (1,300 meters).	Of the estimated 614.4 acres of potential habitat, 77.3 acres, or 12.6 percent will be permanently impacted. Temporary impact of 23.8 acres, or 3.9 percent.	Potential direct permanent and temporary impacts to this species include the risk of direct injury and mortality from construction activities, turbine and transmission line maintenance.

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Species	Latin Name	Status	Habitat	Habitat Impact	Species Impact
Red diamond rattlesnake	<i>Crotalus ruber ruber</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, cultivated areas, and into rocky desert flats.	Of the 4,314.7 acres of suitable habitat, 468.8 acres, or 10.9 percent of permanent. Temporary impacts to 220.2 acres, or 5.1 percent.	Potential direct permanent and temporary impacts due to direct injury and mortality from construction activities and increases in noise and human activity
San Diego banded gecko	<i>Coleonyx variegates abotti</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 1	Creosote bush and sagebrush deserts, pinyon-juniper woodlands, and catclaw cedar-gamma grass associations in the eastern ranges and chaparral habitats in the west.	Of the estimated 614.4 acres of acres of potential rocky habitat (greater than 20 percent rock cover) within the survey corridor, 77.3 acres, or 12.6 percent to be permanently impacted and 23.8 acres, or 3.9 percent are expected to be temporarily impacted	Permanent and Temporary impacts to species habitat in rocky areas.
BIRDS					
Cooper's hawk	<i>Accipiter cooperii</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 1	Common resident in trees, especially pines, hard-wood groves and riparian cottonwoods and sycamores.	Potential direct permanent to 1.1 acres, or 1.7 percent of oak and riparian woodland habitat.. Temporary impacts to 1.3 acres, or 2.1 percent of the 63 acres of suitable habitat.	Potential direct permanent impacts to this species due to direct injury due to construction activities, turbine operation, and transmission line infrastructure.
Golden eagle	<i>Aquila chrysaetos</i>	Fed: BGPA State: None BLM: Sensitive MSCP: Proposed Covered* County: Group 1	Found in open coniferous forest and barren areas, especially in hilly or mountainous regions.	It is anticipated that there is 4,334.6 acres of foraging habitat in the survey corridor. Permanent impacts are expected to occur to 468 acres, or 10.8 percent of foraging habitat. Temporary impacts to included 220.8 acres, or 5.1 percent.	Potential direct permanent and temporary impacts due to disturbed habitat, construction activities, and turbine operation.

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Species	Latin Name	Status	Habitat	Habitat Impact	Species Impact
Loggerhead shrike	<i>Lanius ludovicianus</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 1	Inhabits open brushy areas, meadows, pastures, orchards, thickets along roads, and hedges.	It is anticipated that there are 4,384.4 acres of potential habitat in the survey corridor. Permanent impacts to 470 acres, or 10.7 percent. Temporary impacts to 2221.6 acres, or 5.1 percent, of suitable habitat available within the project survey corridor would be expected.	Potential permanent and temporary impacts due to disturbed habitat, construction activities, turbine operation, and transmission line infrastructure.
Long-eared owl	<i>Asio otus</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 1	Habitat is limited to dense coast live oak woodlands.	Of the 12.7 acres potential nesting habitat, no permanent impacts are anticipated. Temporary impacts to 0.39 acres, or 3.1 percent.	No permanent impacts to this species are anticipated. Temporary impacts to nesting habitat in dense coast live oak woodlands.
Northern harrier	<i>Circus cyaneus</i>	Fed: None State: SSC BLM: Sensitive MSCP: Proposed Covered* County: Group 1	Found in abandoned fields, upland maritime heaths, wet hayfields, salt marshes, and cattail marshes.	Of the estimated 1,041.4 acres of preferred habitat that occurs within the survey corridor, 73 acres, or 7 percent will be permanently impacted, with Temporary impacts to 52.3 acres or 5 percent.	Potential direct permanent and temporary impacts due to disturbed habitat, construction activities, turbine operation, and transmission line infrastructure.
Olive-sided flycatcher	<i>Contopus cooperi</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 2	Found on edges, openings, and natural and human-created clearings adjacent to otherwise relatively dense forests.	Of the estimated 64.3 acres of preferred habitat that occurs within the survey corridor less than 1.1 acre or 1.7 percent will be permanently impacted. Temporary impacts to include less than 2 acres or 2.1 percent is expected to be temporarily impacted by implementation of the proposed project.	Potential direct permanent and temporary impacts due to construction activities, increased noise, and human activity.

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Species	Latin Name	Status	Habitat	Habitat Impact	Species Impact
Prairie Falcon	<i>Falco mexicanus</i>	Federal: None State: None BLM: None MSCP: None County: Group 1	Often found where there are large patches of low vegetation and areas of open ground, vertical cliffs with a rock overhang are preferred for nesting.	Of the estimated 1,028.1 acres of potential habitat, 71.7 acres or 7 percent to be permanently impacted. Temporary impacts to 50.3 acres or 4.9 percent.	Potential direct permanent and temporary impacts due to construction activities, increased noise, and human activity.
Rufous-crowned sparrow	<i>Aimophila ruficeps</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: Group 1	Found in coastal sage scrub and other low growing scrublands.	Of the estimated 4,327.4 acres of semi-arid shrubland habitat that occurs within the survey corridor, 468.6 acres, or 10.8 percent will be permanently impacted. Temporary impacts to 220.6 acres or 5.1 percent.	Potential permanent and temporary impacts due to construction activities, increased noise and human activity.
Turkey vulture	<i>Cathartes aura meridionalis</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 1	Found in dry, open country, farmlands, and woodlands. Needs tall trees to roosts in.	It is anticipated that there is 4,384.4 acres of foraging habitat in the project survey corridor. Permanent impacts to 470 acres, or 10.7 percent. Temporary impacts are expected to occur to 221.6 acres, or 5.1 percent of foraging habitat.	Potential permanent and temporary impacts due to construction activities, increased noise and human activity.
Vaux's swift	<i>Chaetura vauxi</i>	Fed: None State: SSC BLM: None MSCP: Proposed Covered* County: None	Found in mature forest but will also forage and migrate over open country	It is anticipated that there are 4,384.4 acres of potential habitat for this species in the survey corridor. Permanent impact to 470 acres or 10.7 percent. Temporary impacts to 211.6 acres, or 5.1 percent of suitable habitat available within the project survey corridor would be expected.	Permanent and temporary impacts due to construction activities, increased noise and human activity.

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Species	Latin Name	Status	Habitat	Habitat Impact	Species Impact
Western bluebird	<i>Sialia mexicana</i>	Federal: None State: None BLM: None MSCP: Proposed Covered* County: Group 2	Woodlands, farmlands, orchards, savannas, riparian woodlands, and burned or disturbed woodlands	Direct permanent impact. Estimated 64.3 acres of preferred habitat occurring in the survey corridor, of which less than 1.1 acres, or 1.7 percent is expected to be permanently impacted. Temporary impacts to 1.3 acres, or 2.1 percent.	Direct permanent and temporary impacts due to construction activities and increased noise, and human activity.
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	Fed: None State: SSC BLM: Sensitive MSCP: Proposed Covered* County: Group 1	Nesting habitat consists of open areas with mammal burrows in arid and semi-arid environments.	Of the estimated 109.4 acres of potential habitat within the survey corridor, 3.5 acres or 3.2 percent within the survey corridor are expected to be permanently impacted. Temporary impacts are 3.7 acres, or 3.4 percent. will be temporary impacted.	Permanent and temporary impacts to non-native grasslands, open fields and agriculture.
Yellow warbler	<i>Dendroica petechia</i>	Fed: None State: SSC BLM: None MSCP: Covered*	Inhabits riparian areas, or strips of riparian habitat in foothills.	Riparian vegetation communities within the project area are potentially used by yellow warblers. No suitable habitat within the proposed project area would be permanently impacted. Temporary impacts to this species include the limited disturbance of approximately 0.07 acres of the 3.28 acres, or 2.2 percent of southern willow scrub located within the project survey corridor.	No permanent impacts anticipated. Temporary impacts to the yellow warbler are expected.

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Species	Latin Name	Status	Habitat	Habitat Impact	Species Impact
MAMMALS					
Mountain lion	<i>Felis concolor</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Steep rocky canyons from seal level to 10,000 feet and riparian habitat.	Of the 4,334.6 acres of potential habitat, approximately 468.9 acres, or 10.8 percent will be permanently impacted. Temporary impact to 220.8 acres, or 5.1 percent of suitable habitat.	Permanent and temporary impacts due to the removal of existing undisturbed habitat, increased noise and human activity.
San Diego black-tailed jackrabbit	<i>Lepus californicus bennettii</i>	Fed: None State: None BLM: None MSCP: Proposed Covered* County: Group 2	Typically found in open habitats without dense canopy.	It is anticipated that there are 4,384.4 acres of potential habitat for this species in the survey corridor. Permanent impacts to 470 acres, or 10.7 percent. Temporary impact to 221.6 acres or 5.1 percent of suitable habitat available within the project survey corridor would be expected.	Potential direct permanent and temporary impacts due to the loss of habitat.
Southern mule deer	<i>Odocoileus hemionus</i>	Fed: None State: None BLM: None MSCP: None County: Group 2	Deserts, forest-conifer forest, grasslands, shrubland and chaparral.	Of the estimated 4,334.6 acres of habit, approximately 468.9 acres, or 10.8 percent. Temporary impact of 220.8 acres, or 5.1 percent.	Permanent and temporary impacts due to disturbed habitat, disturbance from rise and increased human activity.
Western Small-footed myotis	<i>Myotis ciliolabrum</i>	Fed: None State: None BLM: Sensitive MSCP: None County: Group 2	Found in deserts, chaparral, riparian zones, and western coniferous forest.	Of the estimated 4,554.4 acres of potential habitat, 518.3 acres permanently impacted. Of the estimated 139.8 acres of rocky outcrop roosting habitat, 9 percent permanently impacted. These impacts represent 11.4 percent of available foraging and 6 percent of available roosting habitat.	Direct permanent and temporary impacts to roosting sites, direct mortality, and alteration of foraging habitat.

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Species	Latin Name	Status	Habitat	Habitat Impact	Species Impact
				229.9 acres are to temporarily impact. This represents 5 percent of foraging habitat. In addition 139.8 acres of potential rocky outcrop roosting habitat, 5.8 acres or 4 percent to be temporarily impacted.	

Source: Draft BTR, HDR Engineering, Inc., September 2010.

*Listed in County of San Diego draft (East County) MSCP Plan covered species list

Table 3.4-8 presents the endangered species which have potential to occur within the project area and be impacted by the proposed project. Arroyo southwestern toad has no suitable habitat and therefore will not be impacted by the project. Peninsular bighorn sheep have a very low potential of occurring within the proposed project area, although temporary impacts from noise generated as a result of blasting activity may occur. The California condor, and the Granite magic gecko /barefoot banded gecko are not anticipated to have any permanent impacts. The QCB has been observed on-site and suitable vegetation may exist within or near the project area, therefore, permanent impacts are expected. QCB occupied habitat has not been defined or determined by the USFWS within the project area, and is pending determination. Suitable QCB habit within .62 mile of the 2010 QCB observation is presumed occupied and would be permanently and temporarily impacted. Permanent impacts on less than one percent of potential suitable QCB are expected to result from implementation of the proposed project. Impacts are considered significant.

Indirect Impacts

Wildlife

Construction of wind turbines, support facilities, access roads and transmission lines may locally affect wildlife by disturbing their normal behaviors such as foraging, mating, and nesting (BLM 2005). Wildlife may avoid foraging, mating, nesting or migrating through or around active construction areas and some may permanently abandon the disturbed areas (BLM 2005). Wildlife in surrounding habitats might also be affected if the construction activity (and associated noise) disturbs normal behaviors, such as feeding and reproduction (BLM Wind EIS 2005).

Construction is anticipated to occur during daylight hours, prior to the timeframe that bats commonly forage. Of the 22 species of bats with the potential to occur in the project area, nine species have known fatalities at other wind-energy facilities. Of those nine, the long-legged bat, western yellow bat, and the big free-tailed bate have been recorded within 10 miles of the proposed project footprint (CDFG 2009b). Hoary bat, the most frequently killed bat at other wind facilities (Johnson 2005) are known from the same area and have been identified through acoustic monitoring studies on the project site (CDFG 2009b, WEST 2010).

Table 3.4-8. Potential Impacts to Federal or State Listed Threatened or Endangered Species

Common Name/ <i>Scientific Name</i>	Status	Potential for Habitat or Individuals to Occur Near the Proposed Project Area	Likelihood of Permanent Impacts
Quino checkerspot butterfly	E	April 20, 2010 an individual was sighted in the project footprint along the northern edge of the project	Impacts expected
Arroyo southwestern toad	E	No suitable habitat within or adjacent to the proposed project area. No historical records of occurrence within McCain Valley.	None
Peninsular bighorn sheep, California population	E	Portions of the Critical Habitat Unit 3 are located within approximately 800 ft of the proposed project area; the closest documented individual was recorded 0.79 mile from the proposed project area.	Not likely to affect.
California condor	E	Required habitat components such as large trees, cliffs, mountainous areas, and foothills are absent from the proposed project area. The only occurrence of this species in San Diego County was a satellite-tracked individual observed for three days in 2005 before it returned to Baja California, Mexico.	Not anticipated
Granite magic gecko/ barefoot banded gecko	CA-T	Nearest documented occurrence was recorded 1.25 miles east of the proposed project area. Suitable habitat components exist in the proposed project area; however the proposed project area is approximately 1500 ft higher in elevation than the highest elevation documented for this species.	Not anticipated

Source: Draft BTR, HDR Engineering, Inc., September 2010.

Notes: E = Federally listed Endangered
CA-T = California state listed Threatened

There is no federal, state endangered or threatened, or county List Group I bat species identified. The project may result in impacts to the following County Group II animal species: western small footed myotis (observed in or near the project area) and California leaf-nosed bat, fringed myotis, long-eared myotis, spotted bat, western mastiff bat, and Yuma myotis which were not observed during project related surveys, however there is potential for these species to occur on-site. In addition, echolocation analysis has determined that pallid bat may also be present in or near to the proposed project. Impacts to the western small footed myotis are listed in **Table 3.4-7**.

The McCain Valley terrain is scattered with large granite boulders and outcroppings, features used by BLM sensitive species like the western mastiff bat (Janeke, personal observation 2007), pocketed free-tail bats (Kumirai and Jones 1990), spotted bats (Watkins 1977), and pallid bats (Hermanson and O'Shea 1983), as roost resources. Although these bat species have not identified within the project survey area, it anticipated that these species roosting and foraging behavior may be impacted by the construction activities. Of the estimated 4,554.6 acres of potential foraging habitat, 229.9 acres, or 5 percent is expected to be temporarily impacted. The construction of the project is anticipated to be conducted over 18 to 24 months, although the construction activities would be considered temporary, the project would impact habitat and bat roosting area.

Noise

During construction there are several activities that could have indirect noise impacts on the surrounding environment. These include access road construction and improvements, grading, drilling, blasting, construction of ancillary structures, cleanup and revegetation (BLM 2005). The most adverse noise impact associated with the construction phase could occur if life-cycle activities such as nesting and mating are disturbed (BLM 2005). Disturbances can cause displacement, abandonment and irregular migratory movements (BLM 2005). Noise levels generated during the construction phase of the proposed project would vary significantly. Noise generated by heavy equipment use, construction activities and blasting impacts would depend on the type, model, size, and condition of the equipment that is used during this project (BLM 2005). Noise impacts that occur during construction are usually temporary and intermittent in nature (BLM 2005).

Potential temporary impacts to bats at the project site are anticipated and include alteration of bat roosting and foraging behavior due to noise associated with construction activities. Temporary impacts to 229.9 acres, which represents 5 percent of foraging habitat, In addition, 139.8 acres of potential rocky outcrop roosting habitat, or 5.8 acres, or 4 percent will be temporarily impacted. Noise from day-time construction activities may disturb bats roosting near the proposed project. The distance at which noise is likely to become disturbing to roosting bats is dependent on the sensitivity of the bat species and the roost structure. The use of explosives to remove boulders and rock outcrops may disturb roosting bats to a greater distance from the proposed project impact zone. As discussed in Section 3.12, Noise, of this AED, the San Diego County Noise Ordinance requires that construction activities only occur between the hours of 7 a.m. and 7 p.m. Nighttime construction noise has the potential to interfere with a bat's ability to locate and find food (Schaub et al. 2008). Construction is anticipated to occur during daylight hours, prior to the timeframe that bats commonly forage. Bats and other wildlife species affected by noise would likely avoid areas where construction noise is present. The construction of the project is anticipated to be conducted over 18 to 24 months, although the noise impacts from construction activities would be considered temporary the indirect impacts to bats and other sensitive zoological species are considered significant. Implementation of the Mitigation Measures identified under Section 3.4.6, Wildlife, will reduce this impact to less than significant.

Lighting

To meet Federal Aviation Administration standards, external lighting is planned for one-third of the turbines. Potential temporary impacts to bats at the project site are anticipated to include alteration of bat roosting and foraging behavior due to lighting associated with construction activities. Lights used at night to provide security have the potential to impact bat behavior, altering commuting routes to foraging habitat (Stone et al. 2009). During construction, activities will occur primarily during daylight hours and will not result in indirect impacts from lighting. Security lighting also have the potential to attract night-flying insects on which the bats feed. Bats feeding on insects drawn to street lights are illuminated by the light, potentially making them more vulnerable to avian predators such as owls. Temporary lighting from construction activities would result in temporary indirect impacts to sensitive zoological species; impacts are considered significant. Implementation of the Mitigation Measures identified under Section 3.4.6, Wildlife, will reduce this impact to less than significant.

Fugitive Dust

The project is expected to be constructed over a period of 18 to 24 months, over which fugitive dust would not impact the entire area during the construction period. Dust emissions substantially vary from day to day, depending on the level of activity, the specific operation being conducted, and the prevailing

meteorological conditions. Wet dust suppression techniques, such as watering or applying chemical stabilization, would be used during construction to suppress the fine dust particulates from leaving the ground surface and becoming airborne through the action of mechanical disturbance or wind motion. According to the Draft Tule Wind Air Quality Assessment conducted for the proposed project, the calculated aggregate project trip generation for the construction phase falls below the significance threshold, as presented in Section 3.1, **Table 3.1-11** of this AED. Further discussion of air quality in Section 3.1, Air Quality, specifies that construction of the project will not violate air quality standards. Fugitive dust is expected to be a temporary impact, and with the implementation of dust control measures, construction activities would not increase the fugitive dust to a level that would significantly impact sensitive wildlife species. A less than significant impact is identified for biological resources to be impacted by fugitive dust.

Erosion and Runoff

Construction activities associated with the proposed project may result in increased erosion and runoff impacts to sensitive wildlife (BLM 2005). The reduction of water quality on-site and bodies of water located downstream that are utilized by wildlife, particularly amphibians and fish could be indirectly impacted by construction (BLM 2005). Water quality degradation can affect amphibian and fish reproduction, growth, and survival (BLM 2005). Impacts to wildlife would be localized to the surface waters receiving runoff from the proposed project area (BLM 2005). While construction activities may cause an increase in erosion and runoff, these impacts are considered temporary and can be minimized through proper implementation of appropriate best management practices, as listed in **Table 2.0-6** of Section 2.0. Erosion and runoff from construction activities would result in a less than significant impact.

Introduction of Invasive Vegetation

Wildlife habitat and sensitive botanical species would be adversely impacted if invasive plant species are introduced due to soils and plant material attached to construction vehicles and become established in construction-disturbed areas that are adjacent to native habitats (BLM 2005). Invasive vegetation can reduce the quality of habitat for wildlife and affect wildlife occurrence and abundance (BLM 2005). The introduction of invasive vegetation from construction activities would result in indirect impacts to sensitive botanical and zoological species. However, a *Noxious Weeds and Invasive Species Control Plan* (NWISCP) will be prepared for the project and will include the following measures to be taken to avoid and minimize spreading noxious and invasive weeds during construction:

- Trucks and construction equipment arriving from locations with known invasive vegetation problems to be subject to controlled inspection. A cleaning area will be established to remove and collect seeds that may adhere to tires and other equipment surfaces.
- Additionally, Iberdrola Renewables will require that all construction contractors guarantee that all vehicles and equipment arriving in the project area will be clean. No vehicles or equipment will have soil attached or be carrying plant debris.
- All construction contractors will be responsible for training its personal on noxious weed and invasive species control. Education will include the manner in which weeds spread, prevention methods (vehicle inspection and washing, etc.) and treatment methods.
- Any pesticides used on-site for the control of noxious weeds and invasive species will be limited to non-persistent, immobile pesticides and will only be applied in accordance with label and application directions, and stipulations for terrestrial and aquatic applications.

- Revegetation will be included in the habitat restoration plan, of which seed mixes used during restoration will be tested to ensure they are free of noxious weeds. Additionally, the use of certified weed-free mulching will be required.

Indirect impacts are less than significant for the introduction of invasive vegetation.

Operation and Maintenance

Direct Impacts

Sensitive Botanical Resources

Operation and maintenance of the proposed project would not impact sensitive plant species. Once the project has been constructed, maintenance vehicles would remain on existing graded roads and would not impact sensitive botanical species. Therefore, impacts to sensitive botanical species are less than significant.

Sensitive Zoological Resources

Mortality due to collisions with wind turbines and overhead transmission lines has an adverse permanent effect on bird and bat species. Bird and bat fatalities from collisions with turbines and transmission lines have received the majority of emphasis regarding adverse impacts of wind energy projects. Additionally, the proposed project would permanently remove habitat, such as nest, roost, and forage sites, currently utilized by birds protected under the MBTA.

Electrocution of wildlife, particularly of birds, is possible due to the addition of transmission poles which are used by birds for perching. Electrocution can occur when the horizontal or vertical distance between two energized phase conductors or an energized conductor and grounded hardware is less than the length of a bird's wingspan or height. The majority of raptor electrocutions occur when raptors come in contact with high-voltage electric transmission lines. The permanent meteorological towers will be free-standing with no guy wires. Although, the transmission lines of the proposed project pose an electrocution risk to all birds and bats, Iberdrola Renewables will design all aboveground collector line support structures in keeping with the Avian Protection Plan Guidelines prepared by the U.S. Fish and Wildlife Service (USFWS) and the Edison Electric Institute's Avian Powerline Interaction Committee (APLIC 2005). Iberdrola Renewables will also install anti-perching devices on collector line poles where poles are within 0.5 mile of turbines to reduce potential impacts to bird and bat species.

Of the 22 species of bats with the potential to occur in the survey corridor, Draft BTR Appendix D, Table 1 (Appendix H), nine species have known fatalities at other wind-energy facilities. Of those nine, the long-legged bat, western yellow bat, hoary bat (the most frequently killed bat at other wind facilities (Johnson 2005), and big free-tailed bat have been recorded in the vicinity (CDFG 2009b, WEST 2010). None of the BLM sensitive bat species Long-eared myotis, Fringed myotis, and the California leaf-nosed bat with potential to occur in the survey corridor have been recorded among fatalities at other wind-energy facilities.

There is very low potential for peninsular bighorn sheep to occur within the project footprint. The portion of the proposed project footprint (east of McCain Valley Road) is within approximately 800 feet of peninsular bighorn sheep critical habitat. Significant impacts to this species are not anticipated. However, indirect temporary impacts from noise generated by the use explosives may occur. USFWS data from the extensive radio tracking and monitoring of the nearest bighorn sheep population in Carrizo Gorge dating

back to 1940 (though most records are from studies in the last 20 years) show the closest documented peninsular bighorn sheep location as 0.79 mile from the proposed project, near Tule Peak (USFWS 2010b). Peninsular bighorn sheep are not expected to use the proposed project area, due to the lack of escape terrain, which is essential for high-quality bighorn sheep habitat.

Peninsular bighorn sheep have adapted to various man-made structures in their environment over the years, such as transmission line poles and towers. Data suggests that there is little permanent indirect effect on this species due to presence of these structures. Recently, Peninsular bighorn sheep were observed passing beneath I-8 through Devil's Canyon, and drinking from radiator water reservoirs on the side of the I-8 (Border Patrol observations as cited in SDG&E 2008). The project is not anticipated to significantly impact the movement of animal species using migratory wildlife corridors or impede the use of wildlife nursery sites. Impacts are less than significant.

Permanent and temporary direct impacts would occur from removal of existing infrequently used golden eagle foraging habitat. Although mortality may occur from strikes with turbines, the potential for such strikes is low. (Golden Eagle Report, Appendix M). There are no golden eagle nests present within 4,000 feet of any project development on lands within the County of San Diego BMO regulated parcels. Impacts to golden eagle foraging habitat will be mitigated through provision of habitat based mitigation.

Potential permanent impacts to bats using the project site are anticipated to include direct mortality of bats, destruction of day and night roosting sites, maternity roosts, and hibernacula, and alteration of foraging habitat and behavior. Direct mortality of bats at wind farms results from collision with the turbines (Horn et al. 2008). Bat species identified to have the potential to be located within the project area have been designated as CDFG listed SSC, BLM listed as sensitive, and listed under the draft ESCMP Plan as being "covered." Surveys conducted for the project resulted in the observance of one adult QCB within the project area, and temporary impacts to species covered under the ESA, BLM, and MSCP may be anticipated. Operation of the proposed project would result in direct impacts to sensitive wildlife species, specifically bats and avian species. Impacts to wildlife are considered significant. Implementation of the Mitigation Measures identified under Section 3.4.6 will reduce this impact to less than significant.

Fire

Operation and maintenance activities may increase the potential for fire because of the increase in human activity that would be associated with this project. The proposed project site is within a very high to extreme fire hazard severity zone. Existing vegetation in the area is highly flammable. Increasing the risk of fire in a high fire severity zone increases the potential for adverse impacts to plants and wildlife should a fire occur on site. Operational activities associated with the project include routine maintenance, repair, and upgrades (including the use of gasoline, diesel fuel and other flammable materials) which will be properly handled, stored, and disposed of at a licensed facility that complies with applicable regulations. Additionally, fire risks will be reduced with the establishment and implementation of the Fire Protection Plan (FPP). The FPP will be prepared for the project to establish standards and practices that would minimize the risk of fire danger; and in the case of fire, provide for immediate suppression and notification. Impacts to sensitive wildlife species due to the operation and maintenance of the project are less than significant with the implementation of the adopted FPP (see Section 3.7, Fire and Fuels Management).

Indirect Impacts

Construction of the proposed project has the potential to temporarily impact birds protected under the MBTA. Anticipated temporary impacts would include the disturbance and temporary loss of habitat during the construction phase of the proposed project.

Noise

Operation and maintenance of the proposed project will include the operation of turbines and collector substation. Noise generating activities associated with wind energy projects include wind turbine, transmission line maintenance truck, and maintenance activity noises (BLM 2005). These noise impacts would be intermittent and would persist only during the periods of maintenance during daylight hours (BLM 2005). The operation and maintenance of the project is not anticipated to produce excessive noise which would adversely impact wildlife habitats and behaviors or potentially disrupt breeding or nesting behaviors in particular. Operation and maintenance noise would be intermittent and would persist only during maintenance periods. The proposed project would not result in indirect noise impacts to sensitive wildlife species occurring on and adjacent to the site. Impacts are less than significant.

Lighting

Potential indirect impacts to wildlife include avoidance of habitat near the light source, attraction to the operation and maintenance (O&M) facility due to curiosity or in pursuit of prey attracted to the light, and nest abandonment by avian species. The operations of the project will require external lighting for one-third of the turbines to meet Federal Aviation Administration (FAA) safety standards. The O&M building will have a minimal amount of lighting required for safety purposes. Should other facility lighting be necessary, the lighting would comply with the County of San Diego Light Ordinance Class II Lamp Source and Shielding. The project is located within 15 miles of the Palomar Observatory requiring a dark sky ordinance, and is identified as Zone A, which requires fully shielded lights with no lights over 4.50 lumens. The project does not propose lighting which would cause substantial lighting to affect day or nighttime views, thus impacts from lighting and glare are less than significant.

Fugitive Dust

The operation and maintenance vehicles will produce a minimal amount of dust on dirt roads during required site visits. This activity is not anticipated to produce a level of dust that would impact sensitive resources that may occur adjacent to operation and maintenance areas. Operation and maintenance of the proposed project would not result in impacts due to fugitive dust. Impacts are less than significant.

Erosion and Runoff

Operation and maintenance activities of the wind turbines and collector substation are not anticipated to result in erosion or runoff issues that would impact sensitive resources. Additionally, all operation and maintenance activities would comply with established stormwater management plans. Impacts due to erosion or runoff issues are less than significant.

Introduction of Invasive Vegetation

The operation and maintenance of the project is anticipated to require up to 12 permanent full-time employees, with activities to be conducted within previously disturbed areas including dirt roadways and areas adjacent to the wind turbines. Operation and maintenance of the proposed project will not result in

significant indirect impacts to botanical species through the introduction and spread of invasive vegetation. Impacts are less than significant.

Brush Management

Much of the southwest U.S. is considered a high fire hazard environment. Therefore, the County of San Diego has amended the San Diego County Code (County of San Diego 2009b; Ordinance No. 10014, an Ordinance Amending Title 9 of the San Diego County Code Relating to the County Building and Fire Codes) to mitigate damage to persons, homes, buildings, and other structures. IBR will implement a brush management plan at its project O&M facility and substation. This plan will be based on the following:

- Under the Title 9 of the County Code, brush is to be cleared away from structures to 100 feet (31 meters) in radius, called defensible space (Section 4707.2a). There are two zones to be aware of when creating a defensible space for fire mitigation:
 - Zone 1, From structure out to a minimum of 50 feet: “The area within 50 feet (15 meters) of a building or structure shall be cleared of vegetation that is not fire resistant and/or replanted with fire-resistant plants” (County Code Title 9, Section 4707.2a).
 - Zone 2, Between 50 to 100 feet from structures: “In the area between 50 to 100 feet (15 to 31 meters) from a building all dead and dying vegetation shall be removed. Native vegetation may remain in this area provided that the vegetation is modified so that combustible vegetation does not occupy more than 50 percent of the square footage of this area” (County Code Title 9, Section 4707.2a).

In the proposed project, structures to be built include: metal power poles, substation, O&M building, and wind turbines. The project design will include clearing a 200 foot radius for the construction of the turbines with up to 164 feet to remain as a gravel pad around each turbine. This radius exceeds the County of San Diego’s brush management zone (BMZ), Transmission pole lines will have a 15-foot wide roadway for accessibility, which will remain cleared for brush management. The O&M facility will be located on five acres with an additional five acres surrounding the facility which will be cleared and graveled. The collector lines will be cleared to a width of 24-feet for construction and a 15-foot wide road will run along the collector lines between the turbines. Aboveground collector lines will require a cleared 15-foot wide access road and will be cleared as necessary. Impacts due to brush management are considered less than significant.

Decommissioning

Direct

Decommissioning activities would be similar to construction activities. Upon completion of decommissioning of the site, the area will be restored to the previous natural state. This phase of the project is not anticipated to result in direct impacts to sensitive biological resources (i.e., botanical and zoological species, wetlands or waters of the U.S., wildlife corridors, etc). Therefore, impacts from decommissioning of the proposed project would be less than significant.

Indirect

Noise

During decommissioning there are several activities that may have indirect noise impacts on the surrounding environment. These include deconstruction of turbines and overhead transmission lines, demolition of ancillary structures, cleanup and revegetation (BLM 2005). Noise impacts that occur during decommissioning would be less than the initial construction of the project and are considered temporary impacts. Noise from decommissioning activities would be considered temporary and would not result in significant indirect impacts to sensitive zoological species. Impacts are less than significant.

Lighting

Decommissioning activities, like construction activities, would occur during daylight hours. Lighting from decommissioning would not result in indirect impacts to sensitive zoological species. Impacts are less than significant.

Fugitive Dust

Dust emissions vary substantially from day to day, depending on the level of activity, the specific operation being conducted, and the prevailing meteorological conditions. Wet dust suppression techniques, such as watering or applying chemical stabilization would be used during construction to suppress fine dust particulates from leaving ground surfaces, becoming airborne through the action of mechanical disturbance or wind motion. Further discussion of air quality in Section 3.1, Air Quality specifies that construction of the project will not violate air quality standards. Fugitive dust for the decommissioning of the project is expected to be a temporary impact. Additionally, with the implementation of dust control measures, decommissioning activities would not increase the fugitive dust to a level that would significantly impact sensitive wildlife species. Decommissioning of the project is expected to include less activity than the construction phase because the mixing of concrete will not be required and roadways will already have been built. Impacts from fugitive dust are less than significant.

Erosion and Runoff

Decommissioning activities would include the removal of the O&M building substation facility, turbines, and overhead transmission line and collector line poles. Standard construction BMPs would be used during the decommissioning phase to avoid and minimize erosion and runoff. Revegetation of disturbed areas would be implemented. Impacts are less than significant.

Introduction of Invasive Vegetation

Wildlife habitat and sensitive botanical species would be adversely impacted if invasive plant species are introduced and become established in decommissioned-disturbed areas that are adjacent to native habitats (BLM 2005). Invasive vegetation can reduce the quality of habitat for wildlife and affect wildlife occurrence and abundance (BLM 2005). The BMPs and mitigation measures implemented during construction would also be implemented during decommissioning activities. Impacts are less than significant.

The proposed project would result in a significant impact if it would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS

Construction

Direct Impacts

Impacts to Sensitive Vegetation Communities

The project will require the clearing and grading of vegetated areas for the preparation of tower and infrastructure construction, utility corridors and access roads, construction laydown areas, parking areas, construction of above ground transmission lines, and underground collector system. The construction of the proposed project would result in direct temporary and permanent impacts to sensitive vegetation communities. Impacts to vegetation along transmission lines and staging areas would be temporary, with a revegetation plan implemented to reduce impacts due to the construction activities.

Direct permanent impacts affect the sensitive vegetation community such that it is not expected to recover to the pre-impacted state (e.g., permanent development of a site through grading and construction of structures). Permanent impacts to sensitive vegetation communities that would result from the proposed project include direct destruction from grading, grubbing, clearing, and loss of permanent habitat at turbine locations, support structures, and associated access roads. Additional potential impacts on sensitive vegetation communities could occur from soil compaction, loss of topsoil, and removal of or reductions in the seed bank. Removing oak trees within the proposed project area may also be required.

A number of construction-related activities may temporarily impact sensitive vegetation at the proposed project site. Temporary impacts to a sensitive vegetation community are such that it is expected to recover, with mitigation, to the pre-impacted state (e.g., temporarily widened access roads and construction work areas). Revegetation of temporarily impacted areas would occur after construction is complete. A Revegetation Plan will be submitted detailing the proposed revegetation of temporarily impact habitat prior to construction. Temporary impacts to sensitive vegetation communities that would result from the proposed project include direct destruction from grading and clearing to create unpaved temporary construction access and work areas. Temporary impacts will result primarily from the following components: (1) transmission line and poles (2) overhead and underground collector lines; (3) construction of new and existing roadways, up to 36 feet for crane paths; (4) temporary parking lot; (5) temporary batch plant; (6) temporary staging (laydown) areas; and (6) two meteorological towers and SODAR unit.

There are two collector substation locations proposed on BLM land, the “proposed” collector substation and the “deviant” collector substation. The deviant substation location is a potential alternate to the proposed, and as part of the proposed project is not a separate alternative. **Table 3.4-9** summarizes the impacts to vegetation communities within the footprint of a proposed project alternative with the deviant collector substation, and **Table 3.4-10** summarizes the impacts within the footprint of the proposed project with the deviant collector substation.

3.4 Biological Resources

Table 3.4-9. Summary of Impact by Sensitive Vegetation Community for the Proposed Project

Vegetation Communities	Habitat Tier ¹	Existing Acres	Impact Type		Total Impacts (acres)
			Temporary	Permanent	
Big Sagebrush Scrub	II	149.27	7.16	2.45	9.61
Chamise Chaparral	III	178.32	13.16	22.59	35.75
Dense Coast Live Oak Woodland	I	12.74	0.39	0.00	0.39
Developed	N/A	43.74	0.42	3.89	4.31
Disturbed Habitat	IV	126.50	7.85	44.40	52.25
Field Pasture / Agriculture	IV	49.72	0.82	1.14	1.96
Montane Buckwheat Scrub	II	170.92	7.35	4.35	11.71
Mule Fat Scrub	I	0.28			0.00
Non Native Grass	III	59.66	2.83	2.34	5.18
Non Vegetated Channel	N/A	3.92	0.09	0.47	0.56
Northern Mixed Chaparral	III	477.01	20.97	93.35	114.32
Open Coast Live Oak Woodland	I	50.31	0.93	1.12	2.04
Redshank Chaparral	III	112.80	3.85	5.31	9.16
Scrub Oak Chaparral	III	546.98	28.55	65.62	94.17
Semi Desert Chaparral	III	1688.26	82.67	159.01	241.68
Southern North Slope Chaparral	III	52.69	2.67	5.88	8.55
Southern Riparian Woodland	I	1.22			0.00
Southern Willow Scrub	I	1.78	0.07	0.00	0.07
Upper Sonoran Manzanita Chaparral	III	220.61	10.27	43.01	53.28
Upper Sonoran Subshrub Scrub	III	607.89	33.44	62.38	95.82
Not Surveyed		397.52	0.00	24.41	24.41
Grand Total		4952.12	223.50	541.71	765.21

Source: Draft BTR, HDR Engineering, September 2010

* Habitat Tiers are based on the Draft East County MSCP and have not yet been adopted.

N/A = Not applicable.

Table 3.4-10. Summary of Impacts by Vegetation Community for the Proposed Project with Alternate Transmission Line Alternative #1 with Deviant Substation

Vegetation Community	Habitat Tier ¹	Existing Acres	Impact Type		Total Impacts (acres)
			Temporary	Permanent	
Big Sagebrush Scrub	II	149.27	7.16	2.45	9.61
Chamise Chaparral	III	178.32	13.21	22.59	35.80
Dense Coast Live Oak Woodland	I	12.74	0.39	0.00	0.39
Developed	N/A	43.74	0.42	3.89	4.31
Disturbed Habitat	IV	126.50	7.85	44.40	52.25
Field Pasture/Agriculture	IV	49.72	0.82	1.14	1.96
Montane Buckwheat Scrub	II	170.92	7.35	4.35	11.71
Mule Fat Scrub	I	0.28	0.00	0.00	0.00
Non Native Grass	III	59.66	2.85	2.34	5.19
Non Vegetated Channel	N/A	3.92	0.07	0.05	0.12
Northern Mixed Chaparral	III	477.01	20.97	93.35	114.32
Open Coast Live Oak Woodland	I	50.31	0.93	1.12	2.04
Redshank Chaparral	III	112.80	3.85	5.31	9.16
Scrub Oak Chaparral	III	546.98	28.59	66.05	94.64
Semi Desert Chaparral	III	1688.26	88.30	158.56	246.87
Southern North Slope Chaparral	III	52.69	2.67	5.88	8.55
Southern Riparian Woodland	I	1.22	0.00	0.00	0.00
Southern Willow Scrub	I	1.78	0.07	0.00	0.07
Upper Sonoran Manzanita Chaparral	III	220.61	10.27	44.19	54.46
Upper Sonoran Subshrub Scrub	III	607.89	34.09	62.65	96.73
Not Surveyed	N/A	397.52	0.01	24.41	24.42
Grand Total		4952.12	229.87	542.73	772.60

Source: Draft BTR, HDR Engineering, September 2010

* Habitat Tiers are based on the Draft East County MSCP and have not yet been adopted.

N/A = Not applicable.

To determine the reduction of quality or quantity of habitat, sensitive vegetation communities within the proposed project area have been assigned habitat tiers according to the San Diego County MSCP ranking method on ecological importance. While the conceptual ECMSCP has not yet been prepared, the South San Diego County MSCP ranking method was used to identify tiers for habitats in the project area. Where the South San Diego County MSCP did not cover an identified habitat, guidance from the County's Significance Determination and Report Format Guidelines was used. If the habitat still was not covered, a similar habitat was used to assign a tier. Permanent and temporary impacts due to the proposed project to Tier I, II, and III equivalent types of vegetation will be taken from the deviant substation given that is the highest impact number, as identified below in **Table 3.4-9**.

All natural vegetation communities in the proposed project area are considered sensitive with the exception of those that occur in agriculture, developed, or disturbed habitat. These vegetation communities are not sensitive because they are man-made and typically support little to no wildlife

3.4 Biological Resources

diversity or special status species. The locations of these areas are shown in the Biological Resource Maps, of the Draft BTR Appendix H (Appendix H). The direct loss of habitat and vegetation within the proposed project footprint would be the most significant impact from the project.

The overall project area encompasses approximately 15,390 acres. However, as shown in **Table 3.4-9**, the construction footprint of the proposed project would impact approximately 765.21 acres. Project implementation would result in approximately 223.50 acres of temporary and 541.71 acres of permanent impacts to the Tier I, II, and III vegetation communities within this construction footprint.

This is approximately 15.4 percent of the 4,952 acres of sensitive habitat that occurs within the survey corridor. Permanent impacts to sensitive habitats account for just over one percent of the entire 15,390 acres project area. The percentages of known acreage of each vegetation community within the surveyed area can be extrapolated to encompass the entire 15,390 acres project area, and used to obtain a reasonable idea of the available natural vegetation within the larger undeveloped project area. For each sensitive community, less than 5 percent of the available habitat will be impacted by the proposed project. Approximately 24 acres were unsurveyed and have been included as permanently impacted area. Permanent impacts would occur in areas where new infrastructure is installed and existing infrastructure is expanded or improved.

The deviant collector substation is included in the project to provide flexibility in the project design to minimize impacts to view sheds and natural resources due to topography. For each of the two proposed substation locations, the collector lines, transmission lines, and roadway land disturbance impacts alter slightly; however, the deviant substation yields a higher potential impact for the entire project, with all project components considered. Therefore, the proposed project utilizing the deviant substation is used to show the maximum potential impacts for the project. The proposed project with proposed transmission line and deviant substation footprint (impact extent) will permanently impact approximately 772.60 acres, or approximately 7.4 acres over the proposed substation location, as shown in **Table 3.4-10**.

Permanent impacts to Tier I, II, and III equivalent types of vegetation would be considered significant and require mitigation. Implementation of the Mitigation Measures identified under Section 3.4.6, will reduce this impact to a level less than significant.

Construction activities other than direct vegetation removal may impact oak trees within the proposed project area. Impacts from ground disturbance and compaction near oak woodlands could damage the shallow root systems of oak trees, which would result in proportional impacts to the oak woodland. Under the County of San Diego Guidelines for Determining Significance for Biological Resources, all coast live oak woodlands and individual mature oak trees located within the proposed project area have been identified and a 50-foot oak root protection zone around the outside edge of the tree canopy has been delineated in the vegetation community maps in the Draft BTR, Appendix H (**Appendix H**) of this AED. The oak root protection zone typically consists of other habitat and is not part of the oak woodland impact analysis. The proposed project would temporarily impact 0.39 acres of dense coast live oak woodland, 0.93 acres temporary impacts of open coast live oak woodland, and 1.12 acres of permanent impacts. Permanent impacts to oak woodland would be considered a significant impact. Implementation of the Mitigation Measures identified under Section 3.4.6, Vegetative Communities and Wildlife Habitats/Wildlife Corridor, will reduce this impact to a level of less than significant.

A number of construction-associated related activities may temporarily impact sensitive vegetation at the proposed project site. Temporary impacts to a sensitive vegetation community are such that it is expected to recover, with mitigation, to the pre-impacted state (e.g., temporarily widened access roads and construction work areas). Revegetation of temporarily impacted areas would occur after construction is

complete. Temporary impacts to sensitive vegetation communities that would result from the proposed project include direct destruction from grading and clearing to create unpaved temporary construction access and work areas. Temporary impacts will result primarily from the following components: (1) temporary construction work areas cleared and grubbed for each wind turbine tower pad; (2) construction of temporary widened (36-foot-wide) roads between turbines, and (3) temporary disturbance of 50 feet by 150 feet per pole associated with overhead power collection line poles. Additional temporary impacts could occur from a temporary cement batch plant at the O&M/Substation facility location, construction staging areas, and from temporary security fencing. However, these impacts may occur within the existing permanent construction footprint and no new significant impact is identified. Temporary impacts to sensitive species are considered is less than significant.

Mule fat scrub is the only riparian habitats that would be impacted by the implementation of the proposed project. Acreages the riparian habitat occurring within the proposed project and observed within survey corridor are presented in **Table 3.4-11**, along with the number of permanently and temporarily disturbed acreages that would result from implementation of the proposed project.

Table 3.4-11. Types and Acreage of Proposed Project Impacts on Natural Communities

Riparian Habitat	Acres Within Proposed Project Area	Impacted Acres		Total Acres Within Surveyed Area
		Permanent	Temporary	
Mulefat scrub	0.00	0.00	0.00	0.28
Southern willow scrub	0.07	0.00	0.07	1.78
Southern riparian woodland	0.00	0.00	0.00	1.22

Source: HDR Engineering, Inc., Draft BTR, September 2010

Upon completion of the project, the applicant will implement a revegetation plan which will restore vegetation to pre-construction standards. Implementation of the proposed project would result in direct temporary and permanent impacts to sensitive vegetation communities. Impacts are considered significant. Implementation of the Mitigation Measures identified under Section 3.4.6, Vegetative Communities and Wildlife Habitats/Wildlife Corridor, will reduce this impact to less than significant.

Indirect Impacts

Additional short-term, localized impacts to vegetation surrounding the construction work areas could occur from indirect effects of construction. These include changes in general plant composition due to loss of substrate, dust, storm water runoff, and nonnative plant propagation.

Noise

Noise resulting from construction of the proposed project would not result in indirect impacts to sensitive vegetation communities. No impacts are identified.

Lighting

Lighting used during construction of the proposed project would not result in indirect impacts to sensitive vegetation communities. No impacts are identified.

Fugitive Dust

The project will require clearing, grading and construction activities, as well as increased vehicle traffic on unpaved access roads. According to the Air Quality Report conducted for the project area, construction grading operations are anticipated as being approximately 2,550,000 cubic yards (cy) of material moved over an anticipated 576-day earthwork period. It is estimated that 95.2 pounds per day of PM₁₀ would be generated due to fugitive dust, which is below the 100 pounds per day San Diego Air Pollution Control District and the federal CAA thresholds. PM_{2.5} levels would be 29.3 pounds per day, which is also below the proposed state threshold of significance of 55 pounds per day for this pollutant and below the federal CAA threshold. Additionally, the project proposes BMPs to include watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction. Impacts are considered less than significant.

Erosion and Runoff

New roadways will be designed to maintain current surface water runoff patterns to prevent erosion. Soil erosion will be controlled at culvert outlets and catch basins and roadway ditches, and culverts will be maintained and cleaned on a regular basis. While construction activities may cause an increase in erosion and runoff, these impacts are considered temporary and can be minimized through proper implementation of appropriate mitigation measures. Indirect impacts due to erosion and runoff to sensitive vegetation communities are less than significant.

Introduction of Invasive Vegetation

The introduction of invasive vegetation into disturbed areas of the proposed project site, and to adjacent areas, may result in long-term impacts to the native plant community within the project area. Invasive plant seeds can be dispersed through a variety of mechanisms, including water or wind, wildlife or livestock, and motorized vehicles or other equipment (BLM 2005). Soils used to backfill and grade portions of the construction site may also introduce invasive species. Seeds may be introduced into impacted areas during construction activities via construction vehicles and personnel, and after construction via OHVs, bicycles, equestrians, and livestock that use newly created access to areas that previously had limited access. Clearing, weed abatement, and fire suppression of native vegetation around project-related structures may create an opportunity for invasive species to become established and out-compete native vegetation. As described previously, a Noxious Weeds and Invasive Species Control Plan will be completed prior to construction to clean vehicles arriving to the project area with attached soil that may carry plant debris or seeds. In addition revegetation will be included in the Habitat Restoration Plan to reestablish native plants to temporarily disturbed areas. The introduction of invasive vegetation would be limited with the implementation of these two plans and would not result in significant impacts to sensitive vegetation communities. Impacts are less than significant.

Operation and Maintenance

Direct Impacts

Activities associated with the operation and maintenance of the facility would result in minor long-term adverse effects. The operation and site maintenance of the proposed project will include an increase of road traffic through the project site. Over the lifetime of the facility, routine site maintenance such as weed abatement, fire suppression activities, and infrastructure repair would be an ongoing source of disturbance. Weed abatement and fire suppression activities may result in maintenance of plant communities, routine repair and maintenance would include occasional roadway grading, vegetation

trimming or removal. Access and staging for occasional large-scale repairs or maintenance may result in unanticipated temporary impacts to adjacent native vegetation. Maintenance activities would be limited to work areas which would limit the potential for exposure of vegetation to herbicides, uncontained fuels, lubricants, and/or hazardous waste materials. Potential impacts to vegetation within and adjacent to a wind energy project and its ancillary facilities could occur from increases in public access, unauthorized OHV use, illegal dumping, and illegal collection of plants from these areas (BLM 2005). Planned infrastructure (e.g., roads and ROW) for the proposed project would create new public access points in relatively undisturbed areas of McCain Valley and the western ridgeline. Operations and maintenance of the proposed project would not have a significant impact to sensitive vegetation communities.

Fire

Increased activity during operation of the proposed project has the potential to increase the risk of fire. This addition of operations would increase the potential for fire risks by the creation of a number of different ways for fires to begin. As discussed in Section 3.7 Fire and Fuels Management, the proposed project site is within a very high to extreme fire hazard severity zone, and existing vegetation in the area is highly flammable. Increasing the risk of fire in a high fire severity zone increases the potential for vegetation on and near the project site to be adversely impacted by fire. The overhead transmission line will meet the requirements of California Public Utilities Commission, General Order Rule 95, and Rules for Overhead Electric Line Construction. A shield wire will be installed on the steel poles to protect the energized conductor from lightning to further reduce potential fire hazards. Additionally, a Fire Protection Plan would be developed and implemented which would result in less than significant impacts to sensitive vegetation communities.

Exposure to Contaminants

As addressed in Section 3.10, Hazards Hazardous Materials, operation of the facility is not expected to generate any hazardous waste. Operation and maintenance activities will utilize vehicle and equipment fuels, gear oil, hydraulic fluid, and coolant. These substances would be confined to the O&M facility area and would not impact vegetation communities to hazardous materials. Maintenance of the proposed project would result in a less than significant impact to sensitive vegetation communities.

Indirect Impacts

Noise

Sensitive vegetation communities are not a type of biological resource that would be impacted by noise. Noise generated by the operation and maintenance of the proposed project would not result in impacts to on-site or adjacent sensitive vegetation communities. No impacts are identified.

Lighting

Sensitive vegetation communities are not a type of biological resource that would be impacted by level of lighting proposed by the project. Lighting generated by the operation and maintenance of the proposed project would not result in impacts to on-site or adjacent sensitive vegetation communities. No impacts are identified.

Fugitive Dust

The proposed project is located in a semi-arid region where fugitive dust generation can be especially high, particularly during seasonally dry conditions. The project proposes up to 12 full time employees for the operation and maintenance of the turbines. Site maintenance will involve a small increase in road traffic through the project site. The majority of the project area is located within BLM jurisdiction which has OHV usage areas. The small amount of fugitive dust emissions resulting from increased vehicle traffic would not have a significant impact on the photosynthesis and respiration of plants adjacent to the proposed project area considering the existing OHV land use. Fugitive dust resulting from increased vehicle traffic would not result in indirect impacts to onsite or adjacent sensitive vegetation communities. Impacts are less than significant.

Erosion and Runoff

Site maintenance will involve the increase of road traffic through the project site which may adversely impact the amount and quality of water runoff from roads and the O&M / Substation facility. Operation and maintenance activities will have a limited potential to increase erosion and runoff. Operational areas will be surfaced with gravel to prevent erosion. Additionally, a Storm Water Prevention Plan will be developed and implemented to reduce the amount of erosion and runoff due to operation and maintenance of the project. Impacts are less than significant.

Introduction of Invasive Vegetation

The increase of movement through the area could increase the introduction and spread of invasive vegetation, although the operation and maintenance of the project is anticipated to be conducted by a limited amount of staff (up to 12 employees) with activities to be limited to previously disturbed areas including dirt roadways and areas adjacent to the wind turbines. The limited amount of human activity within the project site during operation and maintenance would not significantly increase the potential for invasive species vegetation. Impacts from the introduction of invasive vegetation due to the operation and maintenance of the project are less than significant.

Increase of Public Use

Potential impacts on vegetation at and adjacent to a wind energy project and its ancillary facilities could occur from increases in public access, unauthorized OHV use, illegal dumping, and illegal collection of plants from these areas (BLM 2005). The majority of the project site is located within a BLM-administered recreation area. Proposed infrastructure (e.g., roads and ROW) for the proposed project would create new public access points in relatively undisturbed areas of McCain Valley and the western ridgeline. Signs will be posted that require the public and OHV users to remain on existing trails and paths. The proposed project would result in a less than significant impact to sensitive vegetation communities.

Decommissioning

Direct Impacts

Decommissioning activities are anticipated to occur within existing disturbed and developed land associated with the project. Therefore, decommissioning would not result in a loss of sensitive vegetation communities and a less than significant impact is identified.

Indirect Impacts

Noise

Sensitive vegetation communities are not a biological resource that would be affected by noise. Therefore, noise generated during decommissioning would result in a less than significant impact to sensitive vegetation communities.

Lighting

Sensitive vegetation communities are not a biological resource that would be affected by lighting. Therefore, lighting used during decommissioning would result in a less than significant impact to sensitive vegetation communities.

Fugitive Dust

Large amounts of dust (i.e., fugitive dust) can arise from the mechanical disturbance of surface soils during the deconstruction and demolition of turbines and support structures. Fugitive dust emissions resulting from decommissioning can affect photosynthesis and respiration of plants adjacent to the proposed project area. Decommissioning of the project is expected to include less activity than the construction phase because the mixing of concrete will not be required and roadways will already have been built. Impacts from fugitive dust are less than significant. Therefore, decommissioning would result in significant indirect impacts to adjacent sensitive vegetation communities.

Erosion and Runoff

As with construction and operational activities, decommissioning will involve the increase of road traffic through the project site which may adversely impact the amount and quality of water runoff from roads and staging points. Accidental fuel spills or releases of other hazardous materials, such as concrete wash water and equipment cleaning agents, could result in the exposure of vegetation to contaminants at the project site if protective measures are inadequate or not followed. Reestablishment of the vegetation may be impacted or delayed because of residual soil contamination. Impacts from exposure to contaminants are expected to be minimal due to hazardous materials spill prevention and control requirements. Impacts are less than significant.

Introduction of Invasive Vegetation

During decommissioning, the increase of movement through the area, along with erosion control measures, may increase the introduction and spread of invasive vegetation. Land that is cleared of native vegetation for the proposed project may create an opportunity for invasive species to become established. Invasive vegetation could also be introduced in the soils used to backfill and grade portions of the decommissioning site. As with the construction phase of the project, seeds can be introduced into these areas via construction vehicles and personnel. A Noxious Weeds and Invasive Species Control Plan will be completed for the decommissioning of the project, as with the construction phase. Additionally, a Habitat Restoration Plan will be completed prior to decommissioning to replant native vegetation in areas where project components have been removed. Impacts to sensitive vegetation communities due to the decommissioning of the project are less than significant with the implementation of these two plans.

3.4 Biological Resources

The proposed project would result in a significant impact if it would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means

Construction, Operations and Maintenance, and Decommissioning

Construction, operation and maintenance, and decommissioning activities potentially could adversely impact jurisdictional waters, increase water runoff, and increase runoff sediment content. Facilities construction, proposed new and improved roads, road crossings, and culverts could result in temporary and permanent impacts to potential jurisdictional waterways. Impacts include removal of vegetation, grading, construction of road crossings, and placement of culverts, other structures, or underground piping. Water quality impacts resulting from the proposed project will require implementation of best management practices (i.e., straw wattles, silt fencing, etc.). Consultation with the wetland/wildlife agencies will be completed. Impacts to federal/state waters will require a Section 404 permit with a RWQCB Section 401 Water Quality Certification. For impacts to CDFG jurisdictional areas, a Section 1600 Series Streambed Alteration Agreement will be necessary.

In order to reduce the impacts to USACE, CDFG, RWQCB, and RPO jurisdictional resources, the proposed project has been designed to avoid and minimize impacts to jurisdictional waters to the maximum extent practicable. However, unavoidable impacts to federal/state waters could occur as a result of project implementation. Impacts to the federal/state waters will require mitigation as defined in permit conditions.

Unavoidable impacts to RPO jurisdictional resources are anticipated. Of the 1.86 acres of RPO resources documented within the survey corridor 0.06 acres will be impacted. It is anticipated that 0.02 acres will be temporarily impacted due to access road construction. The remaining 0.02 permanent impacts will result from 0.008 acres access roads, 0.009 OH structures, 0.006 transmission lines, and 0.005 underground collector construction. The RPO allows encroachment into RPO wetlands and wetland buffers under specific, limited circumstances. Encroachment for required trails and infrastructures are acceptable because the trails and infrastructure meet the following criteria (Section 86.604 (a)):

1. Crossing wetlands for roads, driveways or trails/pathways dedicated and improved to the limitations and standards under County Trails Program, that are necessary to access adjacent lands, when all of the following conditions are met:
 - (aa) There is no feasible alternative that avoids the wetland;
 - (bb) The crossings are limited to the minimum number feasible;
 - (cc) The crossing are located and designed in such a way as to cause the least impact to wildlife movement (e.g., crossing widths shall be the minimum feasible and wetlands shall be bridged where feasible);
 - (dd) The least-damaging construction methods are utilized (e.g., staging areas shall be located outside of sensitive areas, work shall not be performed during the sensitive avian breeding season, noise attenuation measures shall be included and hours of operation shall be limited so as to comply with all applicable ordinances and to avoid impacts to sensitive resources);
 - (ee) The applicant shall prepare an analysis of whether the crossing could feasibly serve adjoining properties and thereby result in minimizing the number of additional crossings required by adjacent development; and
 - (ff) There must be no net loss of wetlands and any impacts to wetlands shall be mitigated at a minimum ratio of 3:1 (this shall include a minimum 1:1 creation component, while

restoration/enhancement of existing wetlands may be used to make up the remaining requirements for a total 3:1 ratio).

2. All feasible measures necessary to protect and preserve RPO jurisdictional lands are required as a condition of approval, and mitigation will provide an equal or greater benefit to the affected species.
 - (aa) The proposed project and alternatives all require crossing RPO wetlands. Existing routes have been used where practicable. (bb) Crossings have been limited to 0.02 acres of permanent impacts and 0.02 acres of temporary impacts to RPO wetlands. Most impacts to RPO wetlands will occur at pre-existing crossings.
 - (bb) Crossings have been limited to 0.02 acres of permanent impacts and 0.02 acres of temporary impacts to RPO wetlands. Most impacts to RPO wetlands will occur at pre-existing crossings.
 - (cc) Approved road crossing and culvert designs will be implemented. Any new crossings will follow natural contours and minimize side hill cuts to the extent possible. Soil erosion will be controlled at culvert outlets, catch basins, and roadway ditches. Culverts will be maintained and cleaned on a regular basis.
 - (dd) Project design considerations and avoidance and minimization measures will ensure the least-damaging construction methods are utilized. Methods discussed in the BTR include avoiding sensitive areas, working outside the breeding season, measures to reduce the significance of noise and lighting on sensitive species.
 - (ee) Existing crossings have been used where feasible. Most impacts to RPO wetlands would occur from improving existing routes in use by multiple property owners and users.
 - (ff) Mitigation for impacts to jurisdictional wetlands is presented in Section 5.4.

Based on the above criteria and mitigation measures and design considerations described in Section 5.4, implementation of the proposed project will not conflict with the RPO section 86.604 (a).

Locations of impacted drainages are identified in the Tule Draft Jurisdictional Wetland Delineation Report, Impacts to Jurisdictional Areas Map (Appendix G). Impacts to jurisdictional areas are summarized in **Table 3.4-12**.

Table 3.4-12. Impacts to Jurisdictional Areas within the Proposed Project with Proposed T-Line

Agency	Existing Jurisdiction (acres)	Proposed Project with Proposed T-Line and Proposed Substation (acres)		Proposed Project with Proposed T-Line and Deviant Substation (acres)		Total Impacts (with Proposed Substation) (acres)	Total Impacts (with Deviant Substation) (acres)
		Temporary	Permanent	Temporary	Permanent		
USACE Wetlands	0	0	0	0	0	0	0
USACE Waters of the U.S. and RWQCB Waters of the State	6.58	0.22	0.19	0.22	0.19	0.41	0.41
CDFG Jurisdictional Areas	19.10	0.56	0.33	0.56	0.33	0.89	0.89
County RPO Wetlands	1.86	0.02	0.03	0.02	0.03	0.06	0.06

Source: Draft Jurisdictional Wetland Delineation Report, HDR Engineering, August 2010

Temporary impacts would result from the construction of a concrete batch plant and haul routes through McCain Valley Road. During clearing for wind turbine pads, road construction and widening, staging and laydown areas and trenching for utility lines, it may be necessary to fill or divert ephemeral drainages for construction. While construction activities may cause an increase in erosion and runoff, these impacts are considered temporary and can be minimized through proper implementation of appropriate BMPs.

There are the same amount of temporary and permanent impacts to the proposed and deviant substation locations. The project area will impact 0.41 acres of USACE and RWQCB jurisdictional waters, 0.89 acres of CDFG jurisdictional areas, and 0.06 acres of County RPO wetlands. It is anticipated that the project will file for a Nation-Wide Permit (NWP) with the USACE under Section 404 of the CWA to authorize the discharge of dredged or fill material into Waters of the U.S. The NWP authorizes impacts for the construction, maintenance, repair, and removal of utility lines and associated facilities. Impacts must not exceed 0.5 acres to comply with the NWP General Conditions, of which the proposed project has 0.41 acres of jurisdictional impacts. Impacts to federally protected wetlands as defined by the USACE are considered less than significant.

The proposed project would result in a significant impact if it would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

Construction, Operation and Maintenance, and Decommissioning

Wildlife expected to move through the proposed project area include: mule deer, mountain lion, bobcat, coyote, small mammals, reptiles and birds. Migrating birds and bats are expected to fly around individual structures or around or over the facility site and continue their migratory movement (BLM 2005). The 4,952-acre project survey corridor is located in the southeast corner of a 418-square-mile (267,520-acre) region that meets the County of San Diego criteria of a biological resource core area because it: (1) consists of or is within a block of habitat greater than 500 acres in area of diverse and undisturbed habitat that contributes to the conservation of sensitive species; and (2) contains topography which serves to allow for the movement of all sizes of wildlife and is used by wildlife, including large animals on a regional scale; and contains adequate vegetation cover providing visual continuity so as to encourage the use of the corridor by wildlife. The majority of the project occurs on BLM land and the entire project permanently impacts only 543 acres of the larger biological core resource area. The project would not significantly impact the viability of the core wildlife area because it does not preclude movement to- or out- of the area, and impacts less than 1 percent of the total area. Additionally, the portions of the project on land parcels under County of San Diego BMO regulated parcels will be mitigated according to County requirements for biological resource core areas.

Transmission corridors are often utilized by wildlife as travel corridors, and the project corridor will not impede wildlife movement. Implementation of the proposed project will not preclude the 15,390-acre project area from being incorporated into the ECMSCP or other regional plan as a wildlife habitat corridor. Impacts to the biological resource core area will be mitigated through provision of habitat based mitigation. Impacts to the movement of wildlife species and wildlife corridors due to the proposed project are considered less than significant.

The proposed project would result in a significant impact if it would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

Construction, Operations and Maintenance, and Decommissioning

The proposed project would impact sensitive species that have been designated as Federally Endangered under the ESA, CDFG-listed SSC, BLM species listed as sensitive, and/or species listed under the draft ECMSCP as being “proposed covered.” Should the project impact occupied QCB habitat, Iberdrola Renewables will consult with the County of San Diego and USFWS regarding appropriate mitigation. One MSCP narrow endemic species, golden eagle, has been identified within the project area. Per the analyses on the affects on golden eagle in the Draft BTR, the project will not impact core populations of narrow endemics.

The County’s local policies and ordinances that protect biological resources include the Draft MSCP East County Subarea Plan, RPO, and BMO. As described above under Regulatory Environment, all of these policies and ordinances address the protection of biological resources. As further described in the previous Significance Guidelines, development (Construction, Operation and Maintenance, and Decommissioning) under the proposed project has the potential to impact sensitive plant and animal species, riparian and other natural communities, wetlands, and potential habitat linkages and corridors that are identified for protection under the County of San Diego Subarea MSCP Plan, BMO, and the RPO.

Therefore, project implementation would result in potentially significant impacts to local policies or ordinances protecting biological resources.

The proposed project would result in a significant impact if it would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan

Construction, Operation and Maintenance, and Decommissioning

An MSCP Plan is an area-specific HCP. The Draft MSCP East County Subarea Plan is the applicable HCP for the unincorporated County. As discussed previously, development of the proposed project (Construction, Operation and Maintenance, and Decommissioning) would significantly impact sensitive vegetation communities, botanical species, and wildlife species covered under the draft MSCP East County Subarea Plan (once finalized) and BMO Guidelines. These impacts would conflict with provisions outlined in local HCPs are considered significant. Therefore, project implementation would result in significant impacts.

3.4.4 Cumulative Impacts

The purpose of this cumulative impact assessment is to determine how biological resources associated with the project area may be impacted by the development of wind energy facilities and any subsequent projects within McCain Valley. The CEQA, in its regulations (BLM 2005, CEQA 1997), and having implemented the procedural provisions of NEPA defines cumulative effects as the following:

“The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (BLM 2005).”

3.4 Biological Resources

CEQA requires projects evaluate cumulative impacts that the proposed project may have on the surrounding area. Section 2.14 of this environmental document, presents past, present, and future projects that are located within a 10-mile radius that will be evaluated for this section. Although these projects may not individually result in significant impacts, combined they may have a cumulative significant effect on biological resources of the area.

- La Posta Telecommunication Facility, Major Use Permit (MUP) (01-052) – Impacts to 0.75 acres of chamise chaparral with mitigation to be 0.5:1 ratio in an approved mitigation bank.
- Miller Creek Reclamation Plan, Reclamation Plan and MUP (04-004 & 04-053) – Impacts to wetlands. Mitigation of approximately 16.4 acres would be used for the creation of wetlands. Draft EIR currently in progress; inactive status as of January 2010.
- Serio Minor Subdivision, Tentative Parcel Map (20393) – Project impacts to oak riparian woodland would be mitigated by the creation of an open space easement for the protection of oak riparian woodland. Utilized older initial study, of which had unspecified impacts and mitigation.
- Frankie Smith, Tentative Parcel Map (20580) – Direct impacts to Coast Live Oak Woodland 2.2 acres, Southern Willow Scrub 0.08 acres, Alkali Meadow 0.07 acres, Chamise chaparral 206.4 acres, Redshank Chaparral 23.5, Great Basin Sage Scrub 21.8 acres, Great Basin Sage Scrub-disturbed 1.5 acres, Semi-.desert Chaparral 0.9 acres, Semi-desert Chaparral- disturbed 1.3 acres, Non-native Grassland 0.2 acres, Disturbed habitat 9.5 acres, Developed 0.8 acres. Mitigation for impacts would occur as the creation of an open space easement for wetlands and habitat. Project was denied by council November 17, 2005 for inadequate process.
- Dart, Tentative Map Parcel (20675) – Impacts to semi-desert chaparral. Mitigation for impacts would preserve 13.95 acres of semi-desert chaparral within an open space easement. Final Notice of Approval Nov. 27, 2006.
- Erdmann Subdivision, Tentative Map Parcel (20698) - Impacts to 0.1 acres of live oak woodland, 0.8 acres of flat-topped buckwheat, and 24.5 acres of semi-desert chaparral. Mitigation will place 56.4 acres of habitat into biological open space. Impact on-and off-site will result in the loss of three Sticky Geraea (0 off-site), approximately 860 Desert beauty (70 off-site); and one Pride of California. Approximately 100 percent of the Tecate tar plants, 50 percent of the Sticky Geraea, 88 percent of the Desert beauty, 89 percent of the nine Pride of California will be preserved on-site. Proposed mitigation will place 56.4 acres of habitat in a biological open space including: 0.8 acres of Coast live oak woodland; 0.3 acres of Great basin sage scrub; 0.8 acres of flat-topped buckwheat; 2.3 acres of Red shank chaparral; and 0.1 acres of Non-native grasslands.
- Grizzle, Tentative Map Parcel (20719) – Impacts to 13.6 acres of habitat requiring 19.5 acres of mitigation. 219.3 acres of the 248.21 acres of the project site is to be placed in an open space easement. 6.7 acres of southern willow scrub riparian habitat is to be protected within this easement.
- Bennett, Tentative Map Parcel (20784) – Potential cumulative impacts to vegetation communities. Three adjacent but separate projects (20777, 20784, 20798) propose to collectively mitigate biological impacts through on-site habitat with open space easement. The proposed open space is fragmented and would introduce significant edge effects. Open space will not fully mitigate impacts to wildlife habitat. Project denied January 29, 2010, case closed March 16, 2010.

3.4 Biological Resources

- Powell, Tentative Map Parcel (20798) – Cumulative biological impacts identified. Redesign biological open space area, but open space easement is fragmented. Project denied January 29, 2010, cased closed April 20, 2010.
- Violli, Tentative Map Parcel (20889) – Biological open space not viable mitigation. Project on inactive status since November 2009.
- Ketchum Ranch, Mixed Use Project (5524, 06-019, 06-014, 06-003, 06-055, 06-069, 06-099, 88-064-02) – Initial study completed, EIR requested, but not completed to date. 19 native habitat communities have the potential to be impacted, including; alkali meadow, riparian woodlands, southern willow scrub, sagebush scrub, semi-desert chaparral, Sonoran desert scrub, Sonoran mixed-woody and succulent scrub, and non-native grasslands. Threatened, endangered, or rare plant or animal species have not been identified to date. Potential to impact wildlife corridors. Subject to County RPO. Idle project status January 2010.
- East County Substation –Impacts to approximately 294 acres of undeveloped land.
- Energia Sierra Juarez Gen-tie.
- Sunrise Power Link – Impacts to approximately 150 miles of new transmission lines with staging associated substations, construction staging areas, access roads and parking areas.

While the other projects in the area could cumulatively result in adverse impacts to wetlands and other Waters of the U.S. when all of their impacts are aggregated, the Tule Wind project is not expected to have any direct impacts. The Tule Wind project is expected to result in negligible cumulative effects to wetlands and other Waters of the U.S. as a result of impact avoidance and the implementation of mitigation measures.

The Tule Wind project will not have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations, or by the CDFG or USFWS. While other projects in the area could cumulatively result in substantial adverse impacts to riparian habitat or other sensitive natural communities when all of their impacts are aggregated, the Tule Wind Project's contribution to a significant cumulative effect are expected to be minimal as a result of impact avoidance and the implementation of mitigation measures.

While other projects in the area could cumulatively result in substantial adverse impacts to riparian habitat or other sensitive natural communities when all of their impacts are aggregated, the Tule Wind Project's contribution to a significant cumulative effect are expected to be minimal as a result of impact avoidance and the implementation of mitigation measures.

The proposed project will not result in conflict with any local policies or ordinances protecting biological resources, or conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP. Therefore, the proposed project will not contribute to cumulative impacts of past or current cumulative projects.

The above projects are anticipated to have cumulative biological impacts to vegetation communities in conjunction with the proposed project. Cumulative biological impacts are identified.

3.4.5 CEQA Levels of Significance Before Mitigation

The proposed project would result in a significant impact if it would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

Construction

Direct Impacts

No federal or state threatened or endangered plants have been observed in the survey corridor, and none are expected to be impacted. A total of 543 acres of vegetation communities or land cover types will be permanently impacted by the proposed project. There are four plant species listed as federal species of concern that have been observed on site including Jacumba milk vetch, Mountain springs bush lupine, Palomar monkey flower and Payson's jewel flower. Ten plants observed on site were identified to be listed with the BLM and/or MSCP include: Desert beauty, Jacumba milkvetch, Jacumba monkeyflower, Palomar monkey flower, Payson's jewel flower, southern jewelflower, sticky geraea, Laguna Mountain alumroot, San Diego hulsea, Mountain Springs bush lupine, Oceanblue larkspur, and Tecate tarplant. Two rare plant surveys have been conducted and one focused survey is scheduled, of which the results will be incorporated upon completion. Impacts to plant species are considered significant.

The proposed project would impact sensitive species that have been designated as Federally Endangered under the ESA, CDFG-listed State Species of Concern (SSC), BLM species listed as sensitive, Sensitive under the County of San Diego Guidelines for Determining Significance (Biological Resources) and/or species listed under the proposed ECMSCP as being "proposed covered." Special status wildlife species that have been observed within the project area and have potential to be impacted include: Quino checkerspot butterfly, western spadefoot toad, coast horned lizard, coast patch nosed snake, red-diamond rattlesnake, chuckwalla, coastal rosy boa, Cooper's hawk, golden eagle, loggerhead shrike, long-eared owl, northern harrier, olive-sided flycatcher, prairie falcon, rufous-crowned sparrow, turkey vulture, Vaux's swift, western bluebird, yellow warbler, San Diego black-tailed jackrabbit and the western small-footed myotis. Echolocation analysis has determined that bat species including California leaf nosed bat, fringed myotis, long-eared myotis, pallid bat, spotted bat, Townsend's western big-eared bat, western mastiff bat, and Yuma myotis may also be present in or near to the proposed project. Impacts to animal species are considered significant.

Construction

Indirect Impacts

Impacted bats and other wildlife species affected by noise would likely avoid areas where construction noise is present. The construction of the project is anticipated to be conducted over 18 to 24 months, although the noise impacts from construction activities would be considered temporary.

The construction of the project is anticipated to be conducted over 18 to 24 months, although the noise impacts from construction activities would be considered temporary the indirect impacts to bats and other a sensitive zoological species considered significant.

Impacts from construction activities would be considered temporary the indirect impacts to bats and other a sensitive zoological species considered significant.

Temporary lighting from construction activities is considered significant.

Erosion and runoff from construction activities would result in a less than significant impact.

Fugitive dust is expected to be a temporary impact, and with the implementation of dust control measures, construction activities would not increase the fugitive dust to a level that would significantly impact sensitive wildlife species.

Erosion and runoff from construction activities would result in a less than significant impact.

Indirect impacts are less than significant for the introduction of invasive vegetation.

Operations and Maintenance

Direct Impacts

Impacts to sensitive botanical species would be considered less than significant. Operation of the proposed project would result in direct impacts to sensitive wildlife species, specifically bats and MBTA covered avian species.

Fire impacts to sensitive wildlife species due to the operational and maintenance of the project are considered less than significant with the implementation of the proposed FPP.

Indirect Impacts

The proposed project would not result in indirect noise impacts to sensitive wildlife species occurring adjacent to the site. Impacts are considered less than significant.

The operation and maintenance noise of the project would be intermittent and would not impact sensitive wildlife species. Impacts are considered less than significant.

The project does not propose lighting which would cause substantial lighting to affect day or nighttime views (dark skies), thus impacts from lighting and glare are considered less than significant.

Operation and maintenance of the proposed project would not result in impacts due to fugitive dust. Impacts are considered less than significant.

Operation and maintenance of the proposed project will not result in significant indirect impacts to botanical species through the introduction and spread of invasive vegetation. Impacts are considered less than significant.

Operation and maintenance activities would comply with established stormwater management plans. Impacts due to erosion or runoff issues are considered less than significant.

Operation and maintenance of the proposed project will not result in significant indirect impacts to botanical species through the introduction and spread of invasive vegetation. Impacts are considered less than significant.

The project exceeds the County of San Diego brush management zone for the project components and will maintain vegetation around the O&M facility. Impacts due to brush management are considered less than significant.

Decommissioning

Direct Impacts

This phase of the project is not anticipated to result in direct impacts to sensitive biological resources (i.e., botanical and zoological species, wetlands or waters of the U.S., wildlife corridors, etc). Therefore, impacts from decommissioning of the proposed project would be less than significant.

Indirect Impacts

Noise from decommissioning activities would be considered temporary and would not result in significant indirect impacts to sensitive zoological species. Impacts are considered less than significant.

Lighting from decommissioning would not result in indirect impacts to sensitive zoological species. Impacts are considered less than significant.

Decommissioning of the project is expected to include less activity than the construction phase because the mixing of concrete will not be required and roadways will already have been built. Impacts from fugitive dust are considered less than significant.

Revegetation of disturbed areas would be implemented. Impacts are considered to be less than significant.

The BMPs and mitigation measures implemented during construction would also be implemented during decommissioning activities. Impacts are considered to be less than significant.

The proposed project would result in a significant impact if it would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS

Construction

Direct Impacts

Approximately 46 acres of non-sensitive habitat (Tier IV) would be permanently impacted by the proposed project. Permanent impacts to Tier I, II, and III of 469 acres equivalent types of vegetation would be considered significant and require mitigation.

The proposed project would temporarily impact 0.39 acres of dense coast live oak woodland and 0.93 acres of open coast live oak woodland. No dense coast live oak woodland habitat would be permanently impacted, though 1.12 acres of open coast live oak woodland would be permanently impacted by the proposed project. Impacts to oak woodland communities would be considered a significant impact. Temporary impacts could occur from the construction of a cement batch plant at the O&M facility location, construction staging areas, and from temporary security fencing. However, these impacts may occur within the existing permanent construction footprint and no new significant impact is identified. This issue is considered less than significant.

Implementation of the proposed project would result in direct temporary and permanent impacts to sensitive vegetation communities. Impacts are considered significant.

Indirect Impacts

Noise resulting from construction of the proposed project would not result in indirect impacts to sensitive vegetation communities. No impacts are identified.

Lighting used during construction of the proposed project would not result in indirect impacts to sensitive vegetation communities. No impacts are identified.

The project proposes BMPs to include watering a necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction. Impacts are considered less than significant.

Indirect impacts due to erosion and runoff to sensitive vegetation communities are considered less than significant.

The introduction of invasive vegetation would be limited with the implementation of these two plans and would not result in significant impacts to sensitive vegetation communities. Impacts are considered less than significant.

Operation and Maintenance

Direct Impacts

A subsequent increase in human use of previously limited access areas may adversely affect vegetation community composition. Operations and maintenance of the proposed project would have a significant impact to sensitive vegetation communities.

Overhead transmission lines will meet requirements of the CPUC to reduce the potential for fire hazards; in addition a Fire Protection Plan will be implemented. Impacts to sensitive vegetation communities due to fire are considered less than significant.

Exposure to contaminants due to the operation and maintenance of the proposed project is less than significant.

Indirect Impacts

Sensitive vegetation communities are not a type of biological resource that would be impacted by noise. No impacts are identified.

Lighting generated by the operation and maintenance of the proposed project would not result in impacts to on-site or adjacent sensitive vegetation communities. No impacts are identified.

Fugitive dust resulting from increased vehicle traffic would not result in indirect impacts to onsite and/or adjacent sensitive vegetation communities. Impacts are considered less than significant.

Operation and maintenance activities will have a limited potential to increase erosion and runoff. Impacts considered are less than significant.

3.4 Biological Resources

The limited amount of human activity within the project site during operation and maintenance would not significantly increase the potential for invasive species vegetation. Impacts due to the operations and maintenance by the introduction of invasive vegetation are considered less than significant.

The increase of public use within on-site and adjacent sensitive vegetation communities is considered a less than significant impact.

Decommissioning

Direct Impacts

Decommissioning activities are anticipated to occur within existing disturbed and developed land associated with the project. Impacts to sensitive vegetation communities are less than significant.

Indirect Impacts

Impacts due to erosion and runoff due from the decommissioning of the proposed project are expected to be minimal due with the implementation of the hazardous spill prevention and control requirements. Impacts are less than significant.

Impacts to sensitive vegetation communities due to the decommissioning of the project is considered less than significant with the implementation of the Habitat Restoration Plan and the Noxious Weeds and Invasive Species Control Plan.

The proposed project would result in a significant impact if it would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means

Construction, Operations and Maintenance, and Decommissioning

NWP authorizes impacts for the construction, maintenance, repair, and removal of utility lines and associated facilities. Impacts must not exceed 0.5 acres to comply with the NWP General Conditions, of which the proposed project contains 0.41 acres of jurisdictional impacts. Impacts to federally protected wetlands as defined by the USACE are considered less than significant.

The proposed project would result in a significant impact if it would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

Construction, Operations and Maintenance, and Decommissioning

Impacts on wildlife movement are anticipated to be temporary. The relatively wide placement of the turbines and anticipated level of human operation is not expected to preclude any forms of movement for migrating species.

Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance

Construction, Operations and Maintenance, and Decommissioning

The implementation of the proposed project would conflict with local policies or ordinances protecting biological resources.

As described previously in the Significance Guidelines, development (Construction, Operations and Maintenance, and Decommissioning) under the proposed project has the potential to impact sensitive plant and animal species, riparian and other natural communities, wetlands, and potentially habitat linkages/corridors that are identified for protection under the MSCP Plan, BMO, and the RPO. Therefore, project implementation would result in potentially significant impacts to local policies or ordinances protecting biological resources.

The proposed project would result in a significant impact if it would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan

Construction, Operations and Maintenance, and Decommissioning

Significant impacts to sensitive vegetation communities, botanical species, and wildlife species covered under the draft MSCP East County Subarea Plan (once finalized) and BMO Guidelines are identified. These impacts would conflict with provisions outlined in local HCPs and are considered significant.

3.4.6 Avoidance and Minimization Measures

Avoidance and Minimization Measures (AMM)

The following Avoidance and Minimization Measures (AMM) will be incorporated into the proposed project to avoid, minimize, or mitigate potential impacts to biological resources:

- AMM-1** A qualified biologist will regularly monitor construction activities to ensure construction is proceeding in compliance with Iberdrola Renewables proposed environmental mitigation measures as well as those measures required by the regulatory agencies.
- AMM-2** Iberdrola Renewables will develop an environmental training program for its construction contractors and personnel. The environmental training will cover the sensitive resources found on-site, flagging/fencing of exclusion areas, permit requirements, and other environmental issues. All construction site personnel will be required to attend the environmental training in conjunction with hazard and safety training prior to working on-site.
- AMM-3** A monitoring program would be implemented to ensure environmental conditions are monitored during the operation and decommissioning phases (Iberdrola Renewables 2010). The monitoring program would include adaptive management strategies to reflect improved technology or the need to adjust to a better understanding of the data during the actual impacts of the project.

- AMM-4** Nighttime vehicle traffic volume associated with project activities will be kept to a minimum and speeds will be limited to 10 miles per hour to prevent mortality of nocturnal wildlife species.
- AMM-5** At the completion of the Project, all construction materials will be removed from the site.
- AMM-6** Except when not feasible due to physical or safety constraints, all Project vehicle movement will be restricted to existing access roads and access roads constructed as a part of the Project and determined and marked by the project proponent in advance of construction. Approval from a biological monitor will be obtained prior to any travel off existing access roads.
- AMM-7** During construction and operation of the proposed project, measures will be taken to avoid/minimize the impact of light intrusion into adjacent native habitat. The BLM Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western U.S. recommends the following:
- Night lighting during construction would not occur to the maximum extent practicable;
 - Any night lighting during construction and operation would be selectively placed, shielded, and directed away from all areas of native habitat to the maximum extent practicable; and
 - All unnecessary lighting should be turned off at night to limit attracting migratory birds.
- AMM-8** The construction contractor(s) shall adhere to all San Diego County Air Pollution Control District (SDAPCD) Rules and Regulations. Compliance with SDAPCD Rule 55 shall reduce fugitive dust during construction.
- AMM-9** Implementation of active dust suppression measures during the construction period to minimize the creation of dust clouds; including, but not limited to: applying water at least once per day, or conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction. Increase watering frequency to four times per day if winds exceed 25 mph. Non-toxic soil stabilizers may be utilized to control fugitive dust.
- AMM-10** Restrict construction vehicle speeds to 20 mph on unpaved roads.
- AMM-11** Apply soil stabilizers to construction areas not being utilized and stabilize disturbed areas if subsequent construction is delayed.
- AMM-12** Replace ground cover in disturbed areas as soon as feasible.
- AMM-13** Prior to any blasting east of McCain Valley Road biological monitors would confirm that no peninsular bighorn sheep were present within one-third of a mile of the area designated for blasting, in order to avoid harassment or disturbance impacts from blasting. If sheep are present and blasting cannot wait for a time when they have left the area then a temporary sound barrier will be erected to reduce the impacts on sheep habitat.

3.4.6.1 Mitigation Measures

Vegetative Communities and Wildlife Habitats/Wildlife Corridor

Direct Permanent Impacts

Impact BIO-1

Vegetation removal from grading and clearing at turbine locations, support structure locations, and access road construction would be the primary source of direct permanent impacts to vegetation communities resulting from the proposed project. Approximately 460.8 acres of Tier I, Tier II, and Tier III natural vegetation communities will be permanently impacted by the proposed project. These communities include big sagebrush scrub, chamise chaparral, coast live oak woodland, montane buckwheat scrub, non-native grassland, northern mixed chaparral, redshank chaparral, scrub oak chaparral, semi-desert chaparral, southern north slope chaparral, upper Sonoran manzanita chaparral, and upper Sonoran subshrub scrub.

BIO-1a At the conclusion of construction, sensitive vegetation communities and habitats permanently impacted by the proposed project shall be included in per acre compensatory mitigation. Mitigation ratios for impacts that cannot be avoided shall be taken from the County of San Diego Biological Mitigation Ordinance, Proposed Mitigation for Permanent Project Impacts to Vegetation Communities). This habitat based mitigation will mitigate for vegetation and all sensitive species impacts using a regionally accepted habitat approach mitigation. Anticipated mitigation ratios are provided in **Table 3.4-13**.

BIO-1b Whenever possible, project-related disturbances to ecologically sensitive areas (Tier I, Tier II, Tier III) will be avoided or minimized. Residual areas deemed sensitive that are impacted will be mitigated as appropriate.

BIO-1c Iberdrola Renewables will minimize the clearing of existing trees and shrubs during site design and construction to the greatest practicable extent. A biological monitor shall monitor and quantify impacts to be used for impacts assessment at the conclusion of construction.

Impact BIO-2

The introduction of invasive vegetation species into disturbed areas of the proposed project site and adjacent areas may result in long-term impacts to the native plant community within the project area. Invasive plant seeds can be dispersed through a variety of mechanisms, including water or wind, wildlife or livestock, and motorized vehicles or other equipment (BLM 2005). Soils used to backfill and grade portions of the construction site may also introduce invasive species. Seeds may be introduced into impacted areas during construction activities via construction vehicles and personnel, and after construction via OHVs, bicycles, equestrians, and livestock that use newly created access to areas that previously had limited access. Weed abatement and/or fire suppression activities may result in maintenance of plant communities in early successional stages of community development and may prevent reestablishment of desirable shrub species (BLM 2005). Vegetation clearing, weed abatement, and fire suppression of native vegetation around project-related structures may create an opportunity for invasive species to become established and out-compete native vegetation.

Table 3.4-13. Proposed Mitigation Ratios for Permanent Project Impacts to Vegetation Communities (Impacts in Biological Resource Core Areas)

Vegetation Community	Habitat Tier ¹	Mitigation Ratios
Upper Sonoran Subshrub Scrub	III	1:1
Montane Buckwheat Scrub ²	II	1:1
Big Sagebrush Scrub ³	II	2:1
(Granitic) Northern Mixed Chaparral	III	1:1
Semi-Desert Chaparral	III	1:1
Chamise Chaparral ²	III	1:1
Redshank Chaparral	III	1:1
Scrub Oak Chaparral	III	1:1
Upper Sonoran Manzanita Chaparral	III	1:1
Southern North Slope Chaparral	III	1:1
Open Coast Live Oak Woodland ^{3,4}	I	3:1
Dense Coast Live Oak Woodland ^{3,4}	I	3:1
Mule Fat Scrub ³	I	3:1
Southern Willow Scrub ³	I	3:1
Southern Riparian Woodland ³	I	3:1
Non-native Grassland	III	0.5:1
Extensive Agriculture	IV	0.5:1
Disturbed Habitat	IV	None
Developed	NA	None
Non-Vegetated Channel	NA	3:1
Non-wetland Waters of the U.S. ⁵	NA	1:1

Source: Draft BTR, HDR Engineering September 2010

1. Habitat Tiers are based on the County of San Diego BMO.
2. Vegetation communities not listed in the County Guidelines or in the County BMO. Mitigation ratios are based on similar habitats. Montane buckwheat scrub=buckwheat scrub and chamise chaparral southern north slope chaparral.
3. Vegetation communities not found in the County Guidelines are based on mitigation ratios taken from the BMO.
4. For oak woodlands, a reduced mitigation ratio of 2:1 may be applied if the woodland would only be subject to fire fuel modification without removing or otherwise affecting mature oak trees or oak tree recruitment. In these cases, the oak woodland must be preserved in dedicated biological open space and fire fuel modification activities must allow maintenance of existing oak trees and oak tree recruitment (County of San Diego 2009c).⁵, Compensatory mitigation for non-wetland waters may include on-site or off-site improvement or enhancement of water resources. In addition, mitigation will be based on USACE thorough review of the project applicant and proposed impacts.

BIO-2a

Iberdrola Renewables plan for control of noxious weeds and invasive species (see Appendix K of the Biological Technical Report) addresses monitoring and educating personnel on weed identification, and methods for avoiding and treating infestations. Use of certified weed-free mulching or reuse of onsite debris from construction (i.e., onsite mulching) will be required. Iberdrola Renewables will work with the BLM to obtain seeding specifications compliant with BLM standards. If trucks and construction equipment arrive from locations with known invasive vegetation problems, a controlled inspection and cleaning area will be established to visually inspect construction equipment arriving at the proposed project area and to remove and collect seeds that may adhere to tires and other equipment surfaces. All vehicles arriving from off-site will be

cleaned and visually inspected before entering the site to ensure that weed seeds are not being carried onto the project site.

- BIO-2b** IBR shall implement a habitat revegetation plan and update the Noxious Weed and Invasive Species Control Plan (see BTR Appendix K) to avoid, minimize, or mitigate negative impacts on vulnerable wildlife, while maintaining or enhancing habitat values for other species.

Direct Temporary Impacts

Impact BIO-3

Vegetation removal from grading and clearing during proposed project construction will result in temporary impacts to vegetation communities.

- MM-BIO-3a** Temporary impacts to vegetation communities will be mitigated through implementation of a habitat revegetation plan. The habitat revegetation plan will detail the proposed revegetation of temporarily impacted habitat and will incorporate special status species to the extent practicable. Topsoil from excavations and construction activities will be segregated from sub-soil and reapplied to the surface of the ground during reclamation. Revegetation will involve recontouring the land, replacing collected topsoil, planting seed and/or container stock, and maintaining (i.e., weeding, replacement planting, supplemental watering, etc.) and monitoring the restored area. Any revegetation efforts will be subject to a revegetation plan approved by the BLM, County of San Diego, and other regulatory agencies. Areas to be revegetated will include all areas temporarily impacted by construction, such as wind turbine construction sites, laydown/staging areas, and temporary access roads. Reclamation activities will be undertaken as early as possible on disturbed areas. Additional reclamation measures will be developed to address site-specific conditions, as necessary.

- MM-BIO-3b** Topsoil from all decommissioning activities will be salvaged and reapplied during final reclamation. Areas of disturbed soil will be reclaimed using weed-free native shrubs, grasses, and forbs.

Indirect Permanent Impacts

Impact BIO-4

Project implementation has the potential to increase the risk of fire.

- BIO-4a** Around each permanent structure, cleared areas are planned which will meet or exceed the county's minimum requirements for brush management and provide fire protection.
- BIO-4b** Vehicles will be prohibited from parking off road to prevent engine sparks from causing a wildfire.
- BIO-4c** Smoking by construction and operation personnel will be prohibited.
- BIO-4d** All vehicles will be kept in good working order and will carry fire extinguishers.

BIO-4e Water trucks with variable delivery capabilities (e.g., hose attachment or articulated water spout) will be on site during heavy equipment operations in case of fire outbreak.

Indirect Temporary Impacts

Impact BIO-5

Indirect impacts associated with project construction to the vegetation communities and sensitive plant or animal species known to occur adjacent to the project construction area could include erosion, runoff, and siltation into off-site areas, and impacts related to storage and access areas. These potential impacts will be short term, but are considered significant impacts.

BIO-5a Implementation of a Storm Water Pollution Prevention Plan will minimize or eliminate incidents of erosion, runoff, and siltation into off-site areas.

BIO-5b The construction workforce will be trained to identify and avoid any sensitive areas or resources. Sensitive areas will be flagged as appropriate (i.e., where they are in the vicinity of potential construction activity), and a biological monitor will be present during construction activities in sensitive areas to minimize the potential for accidental disturbance from construction equipment and crews. Construction area boundaries will be clearly marked.

Wildlife

Impact BIO-6

The proposed project will result in temporary and permanent direct and indirect impacts to wildlife associated with general construction activities.

BIO-6a Iberdrola Renewables will implement construction BMPs identified in applicable permits and required avoidance, minimization, and mitigation measures will minimize and/or avoid a portion of the potential impacts the project will have on wildlife.

BIO-6b All construction employees will be trained and instructed to avoid harassment and disturbance of wildlife, and training will reinforce that no plants or wildlife should be collected from the proposed project site.

BIO-6c Littering will not be allowed. Garbage and trash will be removed from the project area daily.

BIO-6d Project personnel will not be allowed to bring pets to any Project area to minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations.

BIO-6e All steep-walled trenches or excavations used during construction will be inspected twice daily (early morning and evening) to protect against wildlife entrapment. Small open construction holes will be covered overnight; those too large (e.g., excavated turbine foundations) will be sloped or have ramps installed in one or more areas to facilitate escape for mammals and reptiles. Covers will be secured in place nightly, prior to workers leaving the site, and will be strong enough to prevent livestock or wildlife from

falling into the hole. Holes and/or trenches will be inspected prior to filling to ensure the absence of mammals and reptiles. Excavations will be sloped on one end to provide an escape route for small mammals and reptiles. If wildlife is located in the trench or excavation and cannot escape unimpeded, the biological monitor will be called immediately to remove them. The biological monitor will make the required contacts with USFWS and CDFG resource personnel and obtain verbal approval prior to removing any entrapped protected wildlife species. If the biological monitor is not qualified to remove the entrapped wildlife, a recognized wildlife rescue agency (such as Project Wildlife) will be employed to remove the wildlife and transport them safely to other suitable habitats.

Impact BIO-7

Migratory birds could be potentially be impacted during construction and operation of the proposed project. Activities that will contribute to cumulative permanent and temporary impacts to avian species include: construction of turbine pads, O&M substation, proposed and improved roads, overhead electrical collector system, underground collection system, electrical transmission lines (poles and access), and a parking area.

- BIO-7a** Iberdrola Renewables will design the project layout to minimize the use of above-ground transmission lines. The majority of the project will utilize underground collector lines.
- BIO-7b** While still meeting FAA standards, facility lighting shall be minimal and in accordance with best industry practices in order to avoid attracting nocturnal migrants and other animals.
- BIO-7c** IBR shall implement its Avian and Bat Protection Plan (IBR 2008) as part of the proposed project.
- BIO-7d** Structures shall be constructed to conform to the Avian Power Line Interaction Committee's *Suggested Practices for Avian Protection on Power Lines* to help minimize impacts to raptors (e.g., inspect insulation of exposed jumper/ground wires to minimize the risk of avian electrocution; transmission lines shall be designed to minimize the risk of avian electrocution).
- BIO-7e** Post-construction avian and bat fatality studies shall be developed and implemented starting the first year of project operation. The survey and monitoring protocols shall follow the California Energy Commission's California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development (2007) and be developed in consultation with USFWS and CDFG.
- BIO-7f** All ground disturbing activities such as; clearing and grubbing, shall be conducted during the non-breeding season (August 15-February 15).

Impact BIO-8

Bats could be potentially impacted during construction and operation of the proposed project. Activities that will contribute to cumulative permanent and temporary impacts to bat species include: construction of turbine pads, O&M substation, proposed and improved roads, overhead electrical collector system, underground collection system, electrical transmission lines (poles and access), and a parking area.

BIO-8a Iberdrola Renewables will utilize lighting that minimizes the attraction of the insect prey of bats. Permanent lights at O&M and substation facilities will be the minimum intensity to meet security and operational needs. Where practicable, lights will be motion activate so as to reduce unnecessary lighting of areas. All lights will be shielded and aimed down to avoid unnecessary illumination of the area.

BIO-8b An adaptive management plan will be developed to mitigate unforeseen impacts which could not be avoided or minimized through pre-installation measures. The adaptive management plan will include biologically appropriate goals or triggers to initiate adaptive management strategies.

BIO-8c The Iberdrola will implement its Avian and Bat Protection Plan (IBR 2008) as part of the proposed project, which contains a post-construction bat mortality monitoring plan to be implemented starting the first year of project operation.

Impact BIO-9

Disturbance to wildlife species will result from project related noise.

BIO-9a Noise-reduction devices (e.g., mufflers) should be maintained in good working order on vehicles and construction equipment.

BIO-9b Explosives will be used only within specified times and at specified distances from sensitive wildlife or surface waters as established by the BLM or other federal and state agencies.

Impact BIO-10

Disturbance to wildlife species could result from project related lighting.

BIO-10 Several mitigation practices related to lighting impacts are described in MM-BIO-7b. Additional mitigation practices related to lighting that will be implemented are:

1. Any night lighting during construction and operation will be selectively placed, shielded, and directed away from all areas of native habitat to the maximum extent practicable.
2. All unnecessary lighting should be turned off at night to limit attracting migratory birds.

Special Status Species

Impact BIO-11

As currently designed, the project will permanently and temporarily impact suitable habitat for the Quino checkerspot butterfly. Affected habitats include: big sagebrush scrub, chamise chaparral, montane buckwheat scrub, open coast live oak woodland, redshank chaparral, scrub oak chaparral, semi-desert chaparral, upper Sonoran subshrub scrub, and southern north slope chaparral.

- BIO-11a** If construction has not started by April 2011 additional USFWS QCB protocol surveys will be conducted in the QCB flight season prior to construction.
- BIO-11b** All construction clearing and grubbing in QCB area (i.e., the 1-km radius around the QCB sighting) will be conducted in one continuous time period. Clearing and grubbing will not be conducted between February 1 and June 30.
- BIO-11c** Fire brush maintenance will not be conducted between February 1 and June 30, for the life of the project.
- BIO-11d** Orange snow fencing will be put up around all construction within the QCB area (i.e., the 1-km radius around the QCB sighting).
- BIO-11e** New access roads to the turbines in QCB areas will be gated to reduce OHV activity in the QCB Areas.
- BIO-11f** During operations and maintenance of the completed project all roads will be maintained such that no QCB host plants will be allowed to grow within the roadways.

Impact BIO-12

Impacts to nesting raptors and MBTA species could occur.

- BIO-12** At the time of construction, raptor nests or species covered under the MBTA could be present in the project area. IBR shall have raptor nest surveys conducted prior to tree cutting or grading near mature trees to ensure that active nests are not present. A qualified biologist shall conduct the surveys between February 15 and August 30 and prepare a survey report. If no raptor nests are discovered in the trees to be removed, no further mitigation is required. If any active raptor nests are discovered, the biologist shall mark all occupied trees and delineate a 500-foot buffer area around each occupied tree, if appropriate (best judgment of the biological matter on issues such as line of site, etc. may be considered). In addition a 1,200 foot buffer will be implemented in association with active eagle nests. No construction activity shall occur within the delineated buffer until the young have fledged, as determined by a qualified biologist. IBR shall consult with the appropriate agencies regarding its raptor nest protection measures prior to construction.

Impact BIO-13

Impacts to coastal live oak woodlands and oak wood protection zones could occur.

BIO-13 Within County of San Diego jurisdictional areas, project impacts to coast live oak woodlands and oak woodland protection zones shall be mitigated according to the County of San Diego General Plan (2009d). In order to protect the shallow root systems of oak trees within the project footprint, a minimum 50-foot oak root protection zone shall be implemented between the dripline of oak woodlands and the nearest ground disturbance (i.e., grading or trenching).

Where the project results in ground disturbance or compaction within a coast live oak woodland or oak root protection zone, it shall be mitigated with oak woodland habitat. Removal of coast live oak trees (that occur in coast live oak woodland) shall be mitigated at a 3:1 ratio based on the permanent impact to the summed acreage of all individual coast live oak trees and oak root protection zones impacted (County of San Diego 1997, County of San Diego 2009c).

Impact BIO-14

Special status species (California Special Concern Species and/or County sensitive) could be directly and/or indirectly impacted during construction and operation of the proposed project. Sensitive herpetofaunal species affected may include western spadefoot toad, San Diego horned lizard, , rosy boa, and coast patch nosed snake. Sensitive mammalian species affected may include mountain lion, San Diego desert woodrat; San Diego black-tailed jackrabbit, spotted bat, Townsend's western big eared bat, California leaf nosed bat, long-eared myotis, mountain lion, Pallid bat, western mastiff bat, Yuma myotis, and western small-footed myotis. Sensitive avian species affected may include turkey vulture, olive-sided flycatcher, rufous-crowned sparrow, Vaux's swift, western bluebird, yellow warbler, northern harrier, golden eagle, and loggerhead shrike.

BIO-14a Impacts to special status species and habitat will be minimized through the adherence of the mitigation measures stated in BIO-1 through BIO-13.

BIO-14b Impacts to special status species will be avoided to the maximum extent practicable through the minimization of habitat degradation. When avoidance of special status species and their habitat is not feasible, mitigation measures will be put into place. These measures will be designed to avoid any significant reduction in species viability. For special status species, impacts will be mitigated through provision of habitat based mitigation, as required under Mitigation Measure BIO-1a.

BIO-14c A biological monitor will be present during all ground-disturbing and vegetation removal activities. Immediately prior to initial ground-disturbing activities and/or vegetation removal, the biological monitor will survey the site to ensure that no sensitive species will be impacted.

BIO-14d Prior to construction of the 138 kV transmission line(s), surveys for sensitive plant species known to occur or with a moderate to high potential to occur within the project area will be conducted for work areas and access roads during the appropriate phenological period. A report will be prepared that reflects the finding of these surveys and any associated impacts that would result from construction of the transmission line. This report will be submitted to the CPUC prior to the start of construction.

Federal and State Jurisdictional Waters and Wetlands

Impact BIO-15

Permanent and temporary impacts to USACE, RWQCB, CDFG, and County RPO jurisdictional areas will result from project implementation (including the proposed and all alternatives). Permanent impacts will occur from the construction of turbine pads, proposed new and improved roads, construction of the O&M and collector substation facility, installation of the overhead and underground collection cable system, installation of the overhead 138 kV transmission lines, and construction of the parking area. Temporary impacts will result from the construction of a concrete batch plant and haul route through McCain Valley Road.

- BIO-15a** Environmental monitoring will be implemented during construction activities occurring within or adjacent to jurisdictional areas. The installation and maintenance of construction BMPs (i.e., silt fencing, straw wattles, sandbags, etc.) will be monitored by a qualified biologist, pursuant to NPDES, USACE-issued Nationwide Permit or Section 404 permit conditions.
- BIO-15b** The proposed project will be constructed consistent with the design, which minimizes impacts to wetlands, drainages and critical habitat areas, pursuant to NPDES, USACE-issued Nationwide Permit or Section 404 permit conditions.
- BIO-15c** Temporary stockpiles outside the channels or debris basins will be stabilized by compacting or other measures if present at the work site from December 1 to April 1. Silt fences, berms, or other methods will be used to prevent sediments from being eroded from the temporary stockpile into the adjacent drainage. Temporary stockpiles may be placed in channel bottoms or debris basins if they are located on barren soil or areas with non-native weeds, and are not placed in such a manner that they will be exposed to flowing water. No temporary stockpiles will be placed on the channel bed or banks during the period of December 1 to April 1 for more than the duration of the sediment removal work. Permanent stockpiles will be located landward of the 100-year floodplain to the maximum extent feasible, pursuant to NPDES, ACOE-issued Nationwide Permit or Section 404 permit conditions.
- BIO-15d** Iberdrola Renewables will minimize vegetation removal or reduction from channel bottoms to the least amount necessary to achieve the specific construction. Restoration shall include planting or seeding native plants that were present prior to the work and/or are compatible with existing vegetation near the work area. Iberdrola Renewables will prepare a restoration plan for the project that specifies the limits of restoration, planting mix and densities, performance criteria for survival and growth, and at least a 3-year maintenance and monitoring procedures. Restoration sites will be located outside the limits of the repaired structure. If suitable restoration sites are not available, Iberdrola Renewables will provide funds to a third party (public agency or non-profit organization) to implement the required mitigation in the same watershed as the impact. Habitat restoration under this BMP shall only occur if the affected areas support native vegetation; no restoration is required for barren areas or areas dominated by non-native plants. The applicant shall submit all habitat restoration plans to CDFG prior to implementation. The habitat restoration plan for areas within 0.6 miles of the QCB locations will be reviewed and approved by USFWS prior to ground disturbing activities.

- BIO-15e** Iberdrola Renewables will implement appropriate waste management practices during on site concrete repair operations. Waste management practices will be applied to the stockpiling of concrete, curing and finishing of concrete as well as to concrete wash-out operations. Waste management practices will be adequate to ensure that fluids associated with the curing, finishing and wash-out of concrete will not be discharged to a channel or basin. Concrete wastes will be stockpiled separately from sediment and protected by erosion control measures so that concrete dust and debris are not discharged to a channel or basin. The San Diego District will determine the appropriate waste management practices based on considerations of flow velocities, site conditions, availability of erosion control materials and construction costs.
- BIO-15f** All fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment area consisting of an impervious floor and bermed sidewalls capable of holding the volume of the largest container stored within. Iberdrola Renewables will ensure that all equipment operating in and near a drainage, or in a basin, is in good working condition and free of leaks. All vehicles will have drip pans during storage to contain minor spills and drips. No refueling or storage will take place within 100 ft of a drainage channel or structure. Spill containment materials must be on site or readily available for any equipment maintenance or refueling that occurs adjacent to a drainage. In addition, all maintenance crews working with heavy equipment will be trained in spill containment and response.
- BIO-15g** Design measures such as straw wattles, silt fencing, aggregate materials, wetting compounds, and revegetation of native plant species will be implemented to decrease erosion and sedimentation.
- BIO-15h** All work will cease during heavy rains, and will not resume until conditions are suitable for the movement of equipment and materials.
- BIO-15i** A Storm Water Pollution Prevention Plan will be completed before construction.
- BIO-15j** Upon to issuance of a Section 404 permit, or approval of a Nationwide Permit, and Section 401 Water Quality Certification, Iberdrola Renewables will mitigate per permit conditions. Mitigation ratios and approach (creation, restoration, or enhancement) will be determined through agency consultation and be stipulated as a permit condition. Creation and/or restoration mitigation will occur as noted in an approved mitigation, monitoring and reporting program. In areas regulated by the County of San Diego RPO, the no net loss requirements for RPO wetlands will be met.
- BIO-15k** All on-site jurisdictional wetlands and waters will have a minimum 25-foot-wide buffer on either side of the feature (drainage or wash).
- BIO-15l** Dust abatement techniques should be used on unpaved, unvegetated surfaces to minimize airborne dust; and erosion and fugitive dust control measures will be inspected and maintained regularly.
- BIO-15m** Iberdrola Renewables will maintain appropriate water and soil conservation practices during construction and operation of the proposed project to protect topsoil and adjacent resources and to minimize soil erosion. Where possible, Iberdrola Renewables will avoid construction of roads on slopes greater than 10 percent. To minimize erosion during and

after construction, BMPs for erosion and sediment control will be utilized, pursuant to NPDES permit conditions and Storm Water Pollution Prevention Plan measures.

3.4.7 CEQA Levels of Significance After Mitigation

Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

Construction and Decommissioning

Special status species could be directly impacted during construction of the proposed project. Mitigation measure BIO-6a through BIO-6e would reduce indirect temporary impacts to wildlife associated with general construction activities. Should County of San Diego mitigation be required, mitigation measures BIO-11a and BIO-11f provide mitigation to reduce impacts to QCB habitat. Mitigation measures BIO-12 and BIO-14a through BIO-14d will reduce impacts to special status species and nesting raptors and MBTA covered species to reduce impacts. Impacts to birds due to construction and operation of the project will be mitigated with measures BIO-7a through BIO-7f. Impacts to bats due to the construction and operation activities are addressed in mitigation measures BIO-8a through BIO-8c. The implementation of these proposed mitigation measures would reduce impacts to a level of less than significant.

Impacts to QCB as a result of construction of the project are not expected on state and private parcels, although impacts may occur on BLM lands. Permanent and temporary impacts to suitable QCB habitat due to the construction of the project are addressed in mitigation measures BIO-11a through 11f.

Impacts from construction noise activities would be considered temporary. Indirect impacts to bats and other a sensitive zoological species are considered significant. Implementation of mitigation measure BIO-8a through BIO-8c would avoid lighting that attracts insects, utilize tubular design of the wind towers, conduct a preconstruction nesting survey, minimize impacts to raptors, implement an Avian and Bat Protection Plan, conduct post-construction avian and bat fatality studies, and develop an adaptive management plan. Mitigation measure BIO-10 will also reduce impacts related to lighting, which impacts bats, birds, and other zoological species. Additionally, mitigation measures BIO-7a through BIO-7f will reduce impacts to raptors and other bird species. Implementation of these mitigation measures will reduce impacts to a level of less than significant.

Impacts to wildlife are considered significant. Implementation of the mitigation measures BIO-6a and 6-b will reduce impacts due to the general construction activities associated with the proposed project to a level of less than significant.

- Impacts due to erosion and runoff from construction activities are less than significant; no mitigation is required.
- Fugitive dust is expected to temporary impact sensitive wildlife species; no mitigation is required.
- Erosion and runoff from construction activities is less than significant; no mitigation is required.
- Indirect impacts due to invasive vegetation is less than significant; no mitigation in required.

Operations and Maintenance

Impacts to sensitive botanical species would be considered less than significant; no mitigation is required.

3.4 Biological Resources

Operation of the proposed project would result in direct impacts to sensitive wildlife species, specifically bats and MBTA covered avian species. Implementation of mitigation measures BIO-8a through BIO-8c to avoid lighting that attracts insects, develop a monitoring plan and adaptive management plan will reduce impacts to birds and bats to a level of less than significant. Additionally, mitigation measures BIO-7a through BIO-7f and BIO-12 will reduce impacts to raptors and other bird species.

Impacts to sensitive wildlife species due to the operation and maintenance of the project are considered less than significant with the implementation of the proposed FPP. Although mitigation is not required, mitigation measures BIO-4a through BIO-4e will be imposed to further reduce impacts to vegetation communities and animal species.

The proposed project would not result in indirect noise impacts to sensitive wildlife species occurring adjacent to the site. Impacts are considered less than significant; no mitigation is required. Although mitigation is not required, mitigation measures BIO-9a and BIO-9b will be implemented to further reduce the noise impacts to sensitive wildlife.

The project does not propose lighting which would cause substantial lighting to affect day or nighttime views (dark skies); no mitigation is required. Although mitigation is not required, mitigation measure BIO-10 will be implemented to further reduce impacts to animals due to required lighting for the project.

Operation and maintenance of the proposed project would not result in impacts due to fugitive dust. Impacts are considered less than significant, no mitigation is required.

The project exceeds the County of San Diego brush management zone for the project components and will maintain vegetation around the O&M facility. Impacts due to brush management are considered less than significant, no mitigation is required.

Operation and maintenance of the proposed project will not result in significant indirect impacts to botanical species through the introduction and spread of invasive vegetation. Impacts are considered less than significant; no mitigation is required.

Operation and maintenance activities would comply with established stormwater management plans. Impacts due to erosion or runoff issues are considered less than significant; no mitigation is required.

Operation and maintenance of the proposed project will not result in significant indirect impacts to botanical species through the introduction and spread of invasive vegetation. Implementation of mitigation measure BIO-2a, BIO-2b, BIO-3a, and BIO-3b will reduce impacts due to invasive species during the grading and clearing of the proposed project with the implementation of a habitat revegetation plan and noxious weed and invasive species control plan. Impacts would be reduced to a level of less than significant with the implementation of these measures.

Decommissioning

This phase of the project is not anticipated to result in direct impacts to sensitive biological resources (i.e., botanical and zoological species, wetlands or waters of the U.S., wildlife corridors, etc). Impacts from decommissioning of the proposed project would be less than significant; no mitigation is required.

Noise from decommissioning activities would be considered temporary and would not result in significant indirect impacts to sensitive zoological species. Mitigation measure BIO-9a and BIO-9b will reduce project related noise impacts by reducing construction activities during breeding periods, use noise reduce

devices on vehicles and equipment, and limit times and distances to sensitive wildfire when using explosives. Proposed mitigation measure will reduce impacts to a less than significant.

Lighting from decommissioning would not result in indirect impacts to sensitive zoological species. Impacts are considered less than significant; no mitigation is required.

Decommissioning of the project is expected to include less activity than the construction phase because the mixing of concrete will not be required and roadways will already have been built. Impacts from fugitive dust are considered less than significant; no mitigation is required.

Revegetation of disturbed areas would be implemented. Impacts are considered to be less than significant; no mitigation is required.

The BMPs and mitigation measures implemented during construction would also be implemented during decommissioning activities. Impacts are considered to be less than significant; no mitigation is required.

The proposed project would result in a significant impact if it would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS

Construction

Approximately 46 acres of non-sensitive habitat (Tier IV) would be permanently impacted by the proposed project. Permanent impacts to Tier I, II, and III equivalent types of vegetation would be considered significant. Mitigation measure BIO-1a and **Table 3.4-13** provide mitigation ratios as per the County of San Diego to mitigation for impacts to vegetation communities.

Implementation of the proposed project would result in direct temporary and permanent impacts to sensitive vegetation communities. Direct permanent impacts are address in BIO-1a through BIO-1c and direct temporary impacts are identified in BIO-3a, BIO-3b and indirect permanent due to fire are addressed in BIO-4a through BIO-4e. Impacts are considered less than significant with the implementation of the proposed mitigation measures.

Noise resulting from construction of the proposed project would not result in indirect impacts to sensitive vegetation communities. No impacts are identified; no mitigation is required. Although mitigation is not required, mitigation measure BIO-9a and BIO-9b will be implemented to further reduce the noise impacts to sensitive wildlife.

Lighting used during construction of the proposed project would not result in indirect impacts to sensitive vegetation communities. No impacts are identified; no mitigation is required. Although mitigation is not required, mitigation measure BIO-10 will be implemented to further reduce impacts to animals due to required lighting for the project.

The project proposes BMPs to include watering a necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction. Impacts are considered less than significant; no mitigation is required.

Indirect impacts due to erosion and runoff to sensitive vegetation communities are considered less than significant; no mitigation is required.

The introduction of invasive vegetation would be limited with the implementation of these two plans and would not result in significant impacts to sensitive vegetation communities. Impacts are considered less than significant; no mitigation is required.

Operation and Maintenance

A subsequent increase in human use of previously limited access areas may adversely affect vegetation community composition. Operations and maintenance of the proposed project would have a significant impact to sensitive vegetation communities. As discussed previously, direct permanent impacts to vegetation communities are addressed in BIO-1a through BIO-1c. Implementation of proposed mitigation measures would reduce impacts to a level of less than significant.

Overhead transmission lines will meet requirements of the CPUC to reduce the potential for fire hazards; in addition a Fire Protection Plan will be implemented. Impacts to sensitive vegetation communities due to fire are considered less than significant. To further reduce the potential risk of fire mitigation measure BIO-4a through BIO-4e will be put in place to further reduce impacts to area residents due to the construction of the proposed project. Implementation of proposed mitigation measures would reduce impacts to a level of less than significant.

Exposure to contaminants due to the operation and maintenance of the proposed project is less than significant; no mitigation is required.

Sensitive vegetation communities are not a type of biological resource that would be impacted by noise. No impacts are identified; no mitigation is required.

Lighting generated by the operation and maintenance of the proposed project would not result in impacts to on-site or adjacent sensitive vegetation communities. No impacts are identified; no mitigation is required.

Fugitive dust resulting from increased vehicle traffic would not result in indirect impacts to onsite and/or adjacent sensitive vegetation communities. Impacts are considered less than significant, no mitigation is required.

Operation and maintenance activities will have a limited potential to increase erosion and runoff. Impacts considered are less than significant, no mitigation is required.

The limited amount of human activity within the project site during operation and maintenance would not significantly increase the potential for invasive species vegetation. Impacts due to operations and maintenance for the introduction of invasive vegetation are considered less than significant; therefore, no mitigation is required.

The increase of public use on-site and adjacent sensitive vegetation communities is considered a significant impact. Operation and maintenance of the proposed project would result in significant impacts to sensitive vegetation communities.

Decommissioning

Decommissioning activities are anticipated to occur within existing disturbed and developed land associated with the project. Impacts to sensitive vegetation communities are less than significant; therefore, no mitigation is required.

Impacts due to erosion and runoff due to the decommissioning of the proposed project is expected to be minimal due with the implementation of the hazardous spill prevention and control requirements. Impacts are less than significant, no mitigation is required.

Impacts to sensitive vegetation communities due to the decommissioning of the project is considered less than significant with the implementation of the Habitat Restoration Plan and the Noxious Weeds and Invasive Species Control Plan; no mitigation is required.

The proposed project would result in a significant impact if it would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means

Construction, Operation and Maintenance, and Decommissioning

NWP authorizes impacts for the construction, maintenance, repair, and removal of utility lines and associated facilities. Impacts must not exceed 0.5 acres to comply with the NWP General Conditions, of which the proposed project contains 0.41 acres of jurisdictional impacts. Impacts to federally protected wetlands as defined by the USACE are considered less than significant. Although a significant impact is not identified as defined by the USACE, there still is an impact to RWQCB, CDFG, and County RPO jurisdictional areas regarding waters and wetlands. Mitigation measures BIO-15a through BIO-15m will be incorporated to prevent any impacts to water quality due to the proposed project. These mitigation measures will reduce impacts to water quality and jurisdictional areas to a level of less than significant.

The proposed project would result in a significant impact if it would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

Construction, Operations and Maintenance, and Decommissioning

Impacts on wildlife movement are anticipated to be temporary; no mitigation is required.

Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance

Construction, Operation and Maintenance, and Decommissioning

The implementation of the proposed project would conflict with local policies or ordinances protecting biological resources. Impacts to biological resources are considered significant. Mitigation measure BIO-1a identifies the San Diego Biological Mitigation Ordinance (BMO) to reduce impacts to vegetation communities. In addition, mitigation measure BIO-13 will mitigate for the removal of coast live oak woodland trees which may be removed during the construction of the project. The temporary removal of habitat for plants identified in the MSCP will be mitigated by mitigation measures BIO-3a and BIO-3b. With the implementation of the proposed mitigation, no conflicts with any local policies or ordinances

protecting biological resources are identified. The implementation of these mitigation measures will reduce impacts from the proposed project to a level of less than significant.

The proposed project would result in a significant impact if it would conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state habitat conservation plan

Construction, Operation and Maintenance, and Decommissioning

Significant impacts to sensitive vegetation communities, botanical species, and wildlife species covered under the draft MSCP East County Subarea Plan (once finalized) and BMO Guidelines are identified. Direct permanent impact to vegetative communities and wildlife habitats and wildlife corridors is addressed under mitigation measures BIO-1a through BIO-1c, to provide mitigation to impacted vegetation communities. Temporary impact from grading to vegetation communities will be addressed in BIO-3a and BIO-3b. Indirect impacts to vegetation and animal species is addressed in BIO-4a through BIO-4e, BIO-5a and BIO-5b, BIO-6a through BIO-6e, and BIO-14a through 14d. The implementation of these mitigation measures will reduce impacts from the proposed project to a level of less than significant.

3.4.8 Comparison of Alternatives

In developing the alternatives to be addressed in this environmental document, the potential alternatives were evaluated in terms of their ability to meet the basic objectives of the project, while avoiding or reducing the environmental impacts of the project. The alternatives will contain all the same components and construction corridor as the proposed project except they may vary in the number and location.

No Project /No Action Alternative

Under the No Project/No Action Alternative, the proposed project would not be implemented and the impacts associated with the project as described in **Section 2.15** would not occur. Although there would be no impacts to biological resources by the Tule Wind Project, the BLM's determination that the area is conducive to wind and renewable energy development will still be valid, thus leaving the area available for another project. Also, this alternative would still leave the San Diego County region dependent on electricity generated by fossil fuels and without a more reliable source of electricity. The BLM, State, and County would be forced to continue to search for renewable energy projects to contribute to their renewable energy mandates and portfolios. Additionally, the County of San Diego would not move closer to meeting air quality and attainment goals.

Fewer impacts are identified for this alternative as those identified for the proposed project and other alternatives.

Alternative Transmission Line Alternative #1

The Alternate Transmission Line Alternative #1 (T-line Alternative #1) would include all of the same components as the proposed project except for an alternate overhead 138 kV transmission line (T-line Alternative #1), as shown in **Figure 2.0-12**. The T-line Alternative #1 would be located parallel to, but in lieu of, the proposed transmission line. T-line Alternative #1 would be located further west and run from either the proposed or deviant collector substation approximately 5.5 miles south to the Rough Acres Ranch (south of turbine G-19). From Rough Acres Ranch, the line would continue west to Ribbonwood Road. The line would continue south on Ribbonwood Road to Old Highway 80, and east along Old Highway 80 to the SDG&E proposed Rebuilt Boulevard Substation.

This alternative would increase the vegetation community disturbances by approximately 7.64 acres; from 772.6 acres to 780.24 acres, utilizing the deviant collector substation. The 138 kV transmission line would increase in distance from 9.7 miles to 11.7 miles and would increase the amount of transmission line poles from 116 poles to 152 poles, utilizing the deviant collector substation. The 34.5 kV overhead collector lines would remain the same distance of 9.4 miles, and would require the same amount of collector line poles (250), and the underground collector lines would also remain the same distance of 29.3 miles, utilizing the deviant collector substation.

Implementation of this alternative would result in temporary and permanent impacts to vegetation communities and jurisdictional areas. Impacts for this alternative would be greater than of the proposed project with deviant substation (**Table 3.4-10**). Impacts to sensitive plants and wildlife species anticipated during the construction and operation of T-line Alternative #1 would be greater than the impacts associated with the implementation of the proposed project. **Table 3.4-14** summarizes the impacts to vegetation communities within this alternative. **Table 3.4-15** summarizes the impacts to jurisdictional areas within T-line Alternative #1.

Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Considering the increase in acreage for temporary and permanent impacts for this alternative, it is expected that there will be a greater direct and indirect impacts to habitat. The implementation of this alternative would have greater impacts than the proposed project and would adversely affect sensitive species through direct loss of habitat, direct mortality to animals, and disruption of behavior. Indirect impacts to sensitive species would occur from noise, lighting, fugitive dust, erosion and runoff, increased risk of fire and the introduction of invasive vegetation. Impacts to sensitive species are considered significant.

Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

The implementation of this alternative would adversely affect sensitive vegetation communities through direct loss of habitat. Two sensitive plants have been identified, with additional plant surveys to be conducted in the spring. Spring surveys are anticipated to produce additional sensitive species. Indirect impacts to sensitive vegetation communities would occur from fugitive dust, erosion and runoff, increased risk of fire, potential exposure to contaminants and the introduction of invasive vegetation. Impacts to sensitive vegetation communities are considered significant.

**Table 3.4-14. Summary of Impacts by Vegetation Community
Proposed Project with Alternate Transmission Line Alternative #1**

Vegetation Communities	Habitat Tier ¹	Existing Acres	Impact Type		Total Impacts (acres)
			Temporary	Permanent	
Big Sagebrush Scrub	II	149.27	8.23	2.45	10.68
Chamise Chaparral	III	178.32	14.77	22.59	37.37
Dense Coast Live Oak Woodland	I	12.74	1.48	0.00	1.49
Developed	N/A	43.74	2.05	3.89	5.94
Disturbed Habitat	IV	126.50	9.53	44.41	53.94
Field Pasture / Agriculture	IV	49.72	1.91	1.14	3.06
Montane Buckwheat Scrub	II	170.92	7.66	4.36	12.02
Mule Fat Scrub	I	0.28	0.00	0.00	0.00
Non Native Grass	III	59.66	0.54	2.33	2.88
Non Vegetated Channel	N/A	3.92	0.10	0.47	0.57
Northern Mixed Chaparral	III	477.01	20.97	93.35	114.32
Open Coast Live Oak Woodland	I	50.31	1.37	1.12	2.49
Redshank Chaparral	III	112.80	6.22	5.32	11.54
Scrub Oak Chaparral	III	546.98	30.24	65.63	95.87
Semi Desert Chaparral	III	1,688.26	81.64	159.00	240.64
Southern North Slope Chaparral	III	52.69	2.27	5.87	8.14
Southern Riparian Woodland	I	1.22	0.00	0.00	0.00
Southern Willow Scrub	I	1.78	0.18	0.00	0.18
Upper Sonoran Manzanita Chaparral	III	220.61	10.27	43.01	53.28
Upper Sonoran Subshrub Scrub	III	607.89	36.78	62.38	99.16
Not Surveyed	N/A	397.52	2.27	24.42	26.69
Grand Total		4,952.12	238.48	541.76	780.24

Source: Draft BTR, HDR Engineering, Inc., September 2010

* Habitat Tiers are based on the Draft East County MSCP and have not yet been adopted.

N/A = Not applicable.

Table 3.4-15. Impacts to Jurisdictional Areas within the Alternate Transmission Line Alternative #1

Agency	Existing Jurisdiction (acres)	Total Impacts (with Proposed Substation) (acres)	Alternate Transmission Line Alternative #1 with Proposed Substation (acres)		Alternate Transmission Line Alternative #1 with Deviant Substation (acres)		Total Impacts (with Proposed Substation) (acres)	Total Impacts (with Deviant Substation) (acres)
			Temporary	Permanent	Temporary	Permanent		
USACE Wetlands	0	0	0	0	0	0	0	0
USACE Waters of the U.S. and RWQCB Waters of the State	6.58	0.41	0.28	0.19	0.28	0.19	0.47	0.47
CDFG Jurisdictional Areas	19.10	0.89	1.77	0.34	1.77	0.34	2.10	2.10
County RPO Wetlands	1.86	0.06	0.10	0.03	0.10	0.03	0.13	0.13

Source: Draft Jurisdictional Wetland Delineation, HDR Engineering, August 2010.

¹ Impacts are less than 0.00 acres.

Substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means

Construction, Operation and Maintenance, and Decommissioning

Impacts to federal/state/local jurisdictional waters would be greater with Alternative T-line #1 than with the proposed project (**Table 3.4-4**). Implementation of this alternative would adversely affect protected wetlands ('waters of the U.S.') through direct removal, filling and hydrological interruption of jurisdictional areas. Impacts to jurisdictional areas would occur from erosion and runoff. This alternative would have a greater impact to federally protected waters than the proposed project, although impacts must not exceed 0.5 acres to comply with the NWP General Condition, of which this alternative contains 00.47 acres of jurisdictional impacts. Impacts to federally protected wetlands as defined by the USACE are considered less than significant.

Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

Construction, Operation and Maintenance, and Decommissioning

This alternative is located within a larger area considered by the County of San Diego DPLU wildlife movement modeling as an important wildlife linkage for the ECMSCP. Impacts on wildlife movement are anticipated to be temporary. Few studies have been conducted on wildlife movement, and this analysis is based upon the available information. Wildlife species expected to move through this area include mule deer, mountain lion, bobcat, coyote, small mammals, reptiles, and birds. Although these species may be displaced by construction, long-term adverse effects are not anticipated due to animal acclimation to the

buildings and structures. The relatively wide placement of the turbines and anticipated level of human operation is not expected to preclude any forms of movement for migrating species.

Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance

Construction, Operation and Maintenance, and Decommissioning

The implementation of this alternative would be consistent with the proposed project and conflict with local policies or ordinances protecting biological resources, as discussed in Section 3.4-3. Impacts to biological resources are considered significant.

Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan

Construction, Operation and Maintenance, and Decommissioning

The implementation of this alternative would be consistent with the proposed project and would conflict with the provisions of the Draft MSCP East County Subarea Plan. Impacts to sensitive species and vegetation communities covered under the Draft MSCP East County Subarea Plan are considered significant.

This alternative would have greater impacts than the proposed project.

Alternate Transmission Line #2 and Collector Substation Alternative

The Alternate Transmission Line #2 and Collector Substation Alternative would include the alternate O&M/Substation facility co-located on Rough Acres Ranch (T17S R7E Sec9), the Alternate Transmission Line #2 (138 kV), as well as an alternate overhead collector system, as shown in **Figure 2.0-13**. This alternative would consist of two 34.5 kV lines connecting the turbines to the alternate collector substation location. All other elements of the project including the turbine locations, parking and laydown areas, roadway upgrades, and batch plant would remain as described in the proposed project. The Alternate Transmission Line #2 would run from the alternate collector substation south along McCain Valley Road, and then west along Old Highway 80 until reaching the SDG&E proposed Rebuilt Boulevard Substation.

This alternative would increase the vegetation community disturbances by 2.48 acres; from 772.6 acres to 775.08 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

Implementation of the proposed Alternative Transmission Line #2 and Collector Substation Alternative would result in temporary and permanent impacts to vegetation communities and jurisdictional areas. Impacts to sensitive plants and wildlife species anticipated during the construction and operation of this alternative would be greater than impacts associated with implementation of the proposed project.

Table 3.4-16 summarizes the impacts to vegetation communities within this alternative. **Table 3.4-17** summarizes the impacts to jurisdictional areas within this alternative.

**Table 3.4-16. Summary of Impacts by Habitat Type and Vegetation Community
Alternate Transmission Line #2 and Substation Alternative**

Vegetation Communities	Habitat Tier ¹	Existing Acres	Impact Type		Total Impacts (acres)
			Temporary	Permanent	
Big Sagebrush Scrub	II	149.27	7.32	2.46	9.78
Chamise Chaparral	III	178.32	13.50	22.59	36.09
Dense Coast Live Oak Woodland	I	12.74	0.53	0.00	0.53
Developed	N/A	43.74	0.55	3.89	4.44
Disturbed Habitat	IV	126.50	8.09	44.40	52.48
Field Pasture/Agriculture	IV	49.72	1.65	1.14	2.79
Montane Buckwheat Scrub	II	170.92	8.15	13.60	21.74
Mule Fat Scrub	I	0.28	0.00	0.00	0.00
Non Native Grass	III	59.66	2.83	2.34	5.18
Non Vegetated Channel	N/A	3.92	0.13	0.05	0.18
Northern Mixed Chaparral	III	477.01	20.97	93.35	114.32
Open Coast Live Oak Woodland	I	50.31	1.06	1.12	2.17
Redshank Chaparral	III	112.80	3.54	5.30	8.84
Scrub Oak Chaparral	III	546.98	28.45	65.62	94.07
Semi Desert Chaparral	III	1,688.26	84.53	149.57	234.10
Southern North Slope Chaparral	III	52.69	3.72	5.87	9.59
Southern Riparian Woodland	I	1.22	0.00	0.00	0.00
Southern Willow Scrub	I	1.78	0.07	0.00	0.07
Upper Sonoran Manzanita Chaparral	III	220.61	10.27	43.01	53.28
Upper Sonoran Subshrub Scrub	III	607.89	37.84	62.59	100.44
Not Surveyed	N/A	397.52	0.00	24.41	24.41
Grand Total		4,952.12	233.19	541.31	774.50

Source: HDR Engineering, Inc., Draft BTR, September 2010

* Habitat Tiers are based on the Draft East County MSCP and have not yet been adopted.

N/A = Not applicable.

Table 3.4-17. Impacts to Jurisdictional Areas within the Alternate Transmission Line #2 and Collector Substation Alternative

Agency	Existing Jurisdiction (acres)	Project Total Impacts (acres)	Alternate Transmission Line #2 and Collector Substation Alternative (acres)		Total Impacts (acres)
			Temporary	Permanent	
USACE Wetlands	0	0	0	0	0
USACE Waters of the U.S. and RWQCB Waters of the State	6.58	0.41	0.30	0.19	0.49
CDFG Jurisdictional Areas	19.10	0.89	0.65	0.33	0.98
County RPO Wetlands	1.86	0.06	0.03	0.03	0.06

Source: HDR Engineering, Inc., Draft Jurisdictional Wetland Delineation, August 2010.

The following thresholds are used to determine impacts resulting from implementation of this alternative:

Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Considering the increase in acreage for temporary and permanent impacts for this alternative, it is expected that there will be a greater direct and indirect impacts to habitat. Implementation of this alternative would have greater impacts than the proposed project and would adversely affect sensitive species through direct loss of habitat, direct mortality to animals, and disruption of behavior. Indirect impacts to sensitive species would occur from noise, lighting, fugitive dust, erosion and runoff, increased risk of fire and the introduction of invasive vegetation. Impacts to sensitive species are considered significant.

Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would adversely affect sensitive vegetation communities through direct loss of habitat. Two sensitive plants have been identified, with additional plant surveys to be conducted in the spring. Spring surveys are anticipated to produce additional sensitive species. Indirect impacts to sensitive vegetation communities would occur from fugitive dust, erosion and runoff, increased risk of fire, potential exposure to contaminants and the introduction of invasive vegetation. Impacts to sensitive vegetation communities are considered significant.

Substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means

Construction, Operation and Maintenance, and Decommissioning

Impacts to federal and state jurisdictional waters would be greater with the proposed Alternative Transmission Line #2 and Collector Substation Alternative than with the proposed project (**Table 3.4-4**).

Impacts to local jurisdictional areas would remain the same as the proposed project. Implementation of this alternative would adversely affect protected wetlands ('Waters of the U.S.')

through direct removal, filling and hydrological interruption of jurisdictional areas. This alternative would have a greater impact to federally protected waters than the proposed project, although impacts must not exceed 0.5 acres to comply with the NWP General Condition, of which this alternative contains 00.49 acres of jurisdictional impacts. Impacts to federally protected wetlands as defined by the USACE are considered less than significant.

Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

This alternative is located within a larger area considered by the County of San Diego DPLU wildlife movement modeling as an important wildlife linkage for the ECMSCP. Impacts on wildlife movement are anticipated to be temporary. Few studies have been conducted on wildlife movement, and this analysis is based upon the available information. Wildlife species expected to move through this area include mule deer, mountain lion, bobcat, coyote, small mammals, reptiles, and birds. Although these species may be displaced by construction, long-term adverse effects are not anticipated due to animal acclimation to the buildings and structures. The relatively wide placement of the turbines and anticipated level of human operation is not expected to preclude any forms of movement for migrating species.

Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would be consistent with the proposed project and conflict with local policies or ordinances protecting biological resources, as discussed in Section 3.4-3. Impacts to biological resources are considered significant.

Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would be consistent with the proposed project and would conflict with the provisions of the Draft MSCP East County Subarea Plan. Impacts to sensitive species and vegetation communities covered under the Draft MSCP East County Subarea Plan are considered significant.

This alternative would have greater impacts than the proposed project.

Alternative Transmission Line #3 and Collector Substation Alternative

The Alternate Transmission Line #3 and Collector Substation Alternative would include the alternate O&M/Substation facility co-located on Rough Acres Ranch (T17S R7E Sec9), the Alternate Transmission Line #3 (138kV), as well as an alternate overhead collector system as shown in **Figure 2.0-14**. This alternative would consist of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements including the turbine locations, parking and laydown areas, roadway upgrades, and batch plant would remain as described in the proposed project. The Alternate Transmission Line #3 would run from the alternate collector substation west to Ribbonwood Road, continue south along Ribbonwood Road, and then east along Old Highway 80 until reaching the SDG&E proposed Rebuilt Boulevard Substation.

3.4 Biological Resources

This alternative would increase the vegetation community disturbances by 7.33 acres; from 772.6 acres to 779.93 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 5.4 miles and would decrease the amount of transmission line poles from 116 poles to 60 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

Implementation of Alternate Transmission Line #3 and Collector Substation Alternative would result in temporary and permanent impacts to vegetation communities and jurisdictional areas. Impacts for this alternative would be greater than of the proposed project with deviant substation (**Table 3.4-10**). Impacts to sensitive plants and wildlife species anticipated during the construction and operation of this alternative would be greater than impacts associated with implementation of the proposed project. **Table 3.4-18** summarizes the impacts to vegetation communities within this alternative. **Table 3.4-19** summarizes the impacts to jurisdictional areas within this alternative. This alternative would have greater impacts than the proposed project.

**Table 3.4-18. Summary of Impacts by Habitat Type and Vegetation Community
Alternate Transmission Line #3 and Substation Alternative**

Vegetation Community	Habitat Tier ¹	Existing Acres	Impact Type		Total Impacts (acres)
			Temporary	Permanent	
Big Sagebrush Scrub	II	149.27	8.48	2.46	10.95
Chamise Chaparral	III	178.32	14.41	22.59	37.00
Dense Coast Live Oak Woodland	I	12.74	1.62	0.00	1.62
Developed	N/A	43.74	2.05	3.89	5.94
Disturbed Habitat	IV	126.50	9.62	44.41	54.03
Field Pasture/Agriculture	IV	49.72	2.22	1.14	3.36
Montane Buckwheat Scrub	II	170.92	7.91	13.60	21.51
Mule Fat Scrub	I	0.28	0.00	0.00	0.00
Non Native Grass	III	59.66	0.54	2.33	2.88
Non Vegetated Channel	N/A	3.92	0.14	0.05	0.19
Northern Mixed Chaparral	III	477.01	20.97	93.35	114.32
Open Coast Live Oak Woodland	I	50.31	1.37	1.12	2.49
Redshank Chaparral	III	112.80	4.17	5.30	9.48
Scrub Oak Chaparral	III	546.98	28.32	65.62	93.94
Semi Desert Chaparral	III	1,688.26	81.30	149.56	230.85
Southern North Slope Chaparral	III	52.69	3.72	5.87	9.59
Southern Riparian Woodland	I	1.22	0.00	0.00	0.00
Southern Willow Scrub	I	1.78	0.18	0.00	0.18
Upper Sonoran Manzanita Chaparral	III	220.61	10.27	43.01	53.28
Upper Sonoran Subshrub Scrub	III	607.89	39.04	62.60	101.63
Not Surveyed	N/A	397.52	2.27	24.42	26.69
Grand Total		4,952.12	238.60	541.33	779.93

Source: HDR Engineering, Inc., Draft BTR, September 2010

* Habitat Tiers are based on the Draft East County MSCP and have not yet been adopted.

N/A = Not applicable.

Table 3.4-19. Impacts to Jurisdictional Areas within the Alternate Transmission Line #3 and Collector Substation Alternative

Agency	Existing Jurisdiction (acres)	Project Total Impacts (acres)	Alternate Transmission Line #3 and Collector Substation Alternative (acres)		Alt. 3 Total Impacts (acres)
			Temporary	Permanent	
USACE Wetlands	0	0	0	0	0
USACE Waters of the U.S. and RWQCB Waters of the State	6.58	0.41	0.38	0.19	0.56
CDFG Jurisdictional Areas	19.10	0.89	1.90	0.34	2.23
County RPO Wetlands	1.86	0.06	0.10	0.03	0.13

Source: HDR Engineering, Inc., Draft Jurisdictional Wetland Delineation, August 2010

¹ Impacts are less than 0.00 acres.

The following thresholds are used to determine impacts resulting from implementation of this alternative:

Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Considering the increase in acreage for temporary and permanent impacts for this alternative, it is expected that there will be a greater direct and indirect impacts to habitat. Implementation of this alternative would have greater impacts than the proposed project and would adversely affect sensitive species through direct loss of habitat, direct mortality to animals, and disruption of behavior. Indirect impacts to sensitive species would occur from noise, lighting, fugitive dust, erosion and runoff, increased risk of fire and the introduction of invasive vegetation. Impacts to sensitive species are considered significant.

Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would adversely affect sensitive vegetation communities through direct loss of habitat. Two sensitive plants have been identified, with additional plant surveys to be conducted in the spring. Spring surveys are anticipated to produce additional sensitive species. Indirect impacts to sensitive vegetation communities would occur from fugitive dust, erosion and runoff, increased risk of fire, potential exposure to contaminants and the introduction of invasive vegetation. Impacts to sensitive vegetation communities are considered significant.

3.4 Biological Resources

Substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means

Construction, Operations and Maintenance, and Decommissioning

Impacts to federal, state, and local jurisdictional waters from implementation of the proposed Alternate Transmission Line #3 and Collector Substation Alternative would be greater than the impacts associated with the proposed project (**Table 3.4-12**). Implementation of this alternative would adversely affect protected wetlands ('waters of the U.S.') through direct removal, filling and hydrological interruption of jurisdictional areas. This alternative would have a greater impact to federally protected waters than the proposed project, and would exceed 0.5 acres to comply with the NWP General Condition. Impacts to federally protected wetlands as defined by the USACE for this alternative is considered significant.

Impacts to jurisdictional areas would occur from erosion and runoff. Impacts to federally protected waters are considered significant.

Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

This alternative is located within a larger area considered by the County of San Diego DPLU wildlife movement modeling as an important wildlife linkage for the ECMSCP. Impacts on wildlife movement are anticipated to be temporary. Few studies have been conducted on wildlife movement, and this analysis is based upon the available information. Wildlife species expected to move through this area include mule deer, mountain lion, bobcat, coyote, small mammals, reptiles, and birds. Although these species may be displaced by construction, long-term adverse effects are not anticipated due to animal acclimation to the buildings and structures. The relatively wide placement of the turbines and anticipated level of human operation is not expected to preclude any forms of movement for migrating species.

Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would be consistent with the proposed project and conflict with local policies or ordinances protecting biological resources, as discussed in Section 3.4-3. Impacts to biological resources are considered significant.

Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would be consistent with the proposed project and would conflict with the provisions of the Draft MSCP East County Subarea Plan. Impacts to sensitive species and vegetation communities covered under the Draft MSCP East County Subarea Plan are considered significant.

Operation and Maintenance Facility Location #1 Alternative

The O&M Facility Location #1 Alternative would be located on private property (T17S R7E Sec4), north of the alternate collector substation and located west of McCain Valley Road, as shown in **Figure 2.0-13**. This alternative would consist of separating the 5-acre O&M building site from the collector substation;

however, both would remain on Rough Acres Ranch property. Alternate Transmission Line #2 would be utilized under this alternative as well as the Alternate Overhead Collector System consisting of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements of the project including the turbine locations, parking and laydown areas, and batch plant would remain as described in the proposed project.

This alternative is estimated to have the same land disturbance impacts as the Alternate Transmission Line #2 and Collector Substation Alternative, However, by relocating the O&M building site to the northern portion of Rough Acres Ranch, this alternative would require an approximate 650-foot new access road to be constructed on the west of McCain Valley Road, thus necessitating an approximate 0.24 acres of temporary disturbance area, and resulting in 0.30 acres of permanently impacted area. In comparison to the proposed project, this alternative would increase the vegetation community disturbances by approximately 2.48 acres; from 772.6 acres to 775.08 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

Implementation of the O&M Facility Location #1 Alternative would result in temporary and permanent impacts to vegetation communities and jurisdictional areas. Impacts for this alternative would be greater than of the proposed project with deviant substation (**Table 3.4-10**). Impacts to sensitive plants and wildlife species anticipated during the construction and operation of this alternative would be greater than impacts associated with the implementation of the proposed project. **Table 3.4-20** summarizes the impacts to vegetation communities within this alternative. **Table 3.4-21** summarizes the impacts to jurisdictional areas within this alternative.

Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Considering the increase in acreage for temporary and permanent impacts for this alternative, it is expected that there will be a greater direct and indirect impacts to habitat. Implementation of this alternative would have greater impacts than the proposed project and would adversely affect sensitive species through direct loss of habitat, direct mortality to animals, and disruption of behavior. Indirect impacts to sensitive species would occur from noise, lighting, fugitive dust, erosion and runoff, increased risk of fire and the introduction of invasive vegetation. Impacts to sensitive species are considered significant.

Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would adversely affect sensitive vegetation communities through direct loss of habitat. Two sensitive plants have been identified, with additional plant surveys to be conducted in the spring. Spring surveys are anticipated to produce additional sensitive species. Indirect impacts to sensitive vegetation communities would occur from fugitive dust, erosion and runoff, increased risk of fire, potential exposure to contaminants and the introduction of invasive vegetation. Impacts to sensitive vegetation communities are considered significant.

**Table 3.4-20. Summary of Impacts by Habitat Type and Vegetation Community
Alternate Transmission Line #2 and O&M Facility Location #1**

Vegetation Community	Habitat Tier ¹	Existing Acres	Impact Type		Total Impacts (acres)
			Temporary	Permanent	
Big Sagebrush Scrub	II	149.27	7.41	5.51	12.92
Chamise Chaparral	III	178.32	13.50	22.59	36.09
Dense Coast Live Oak Woodland	I	12.74	0.53	0.00	0.53
Developed	N/A	43.74	0.55	3.89	4.44
Disturbed Habitat	IV	126.50	8.08	46.27	54.35
Field Pasture/Agriculture	IV	49.72	1.65	1.14	2.79
Montane Buckwheat Scrub	II	170.92	8.15	9.00	17.14
Mule Fat Scrub	I	0.28	0.00	0.00	0.00
Non Native Grass	III	59.66	2.83	2.55	5.38
Non Vegetated Channel	N/A	3.92	0.14	0.08	0.21
Northern Mixed Chaparral	III	477.01	20.97	93.35	114.32
Open Coast Live Oak Woodland	I	50.31	1.06	1.12	2.17
Redshank Chaparral	III	112.80	3.68	5.49	9.18
Scrub Oak Chaparral	III	546.98	28.45	65.62	94.07
Semi Desert Chaparral	III	1,688.26	84.53	149.41	233.93
Southern North Slope Chaparral	III	52.69	3.72	5.87	9.59
Southern Riparian Woodland	I	1.22	0.00	0.00	0.00
Southern Willow Scrub	I	1.78	0.07	0.00	0.07
Upper Sonoran Manzanita Chaparral	III	220.61	10.27	43.01	53.28
Upper Sonoran Subshrub Scrub	III	607.89	37.84	62.35	100.20
Not Surveyed	N/A	397.52	0.00	24.41	24.41
Grand Total		4,952.12	233.43	541.65	775.08

Source: Draft BTR, HDR Engineering September 2010

* Habitat Tiers are based on the Draft East County MSCP and have not yet been adopted.

N/A = Not applicable.

Table 3.4-21. Impacts to Jurisdictional Areas within the O&M Facility Location #1 Alternative

Agency	Existing Jurisdiction (acres)	Project Total Impacts (acres)	Proposed Project with Proposed T-Line (acres)		Alt. Total Impacts (acres)
			Temporary	Permanent	
USACE Wetlands	0	0	0	0	0
USACE Waters of the U.S. and RWQCB Waters of the State	6.58	0.41	0.31	0.20	0.51
CDFG Jurisdictional Areas	19.10	0.89	0.66	0.35	1.00
County RPO Wetlands	1.86	0.06	0.03	0.04	0.07

Source: HDR Engineering, Inc., Draft Jurisdictional Wetland Delineation, August 2010

3.4 Biological Resources

The following thresholds are used to determine impacts resulting from implementation of this alternative:

Substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means

Construction, Operation and Maintenance, and Decommissioning

Impacts to federal jurisdictional waters from implementation of the proposed O&M Facility Location #1 Alternative would be similar to impacts associated with the proposed project (**Table 3.4-12**). Impacts to federal, state, and local jurisdictional areas would be the greater with this alternative as with the proposed project. Implementation of this alternative would adversely affect protected wetlands ('waters of the U.S.') through direct removal, filling and hydrological interruption of jurisdictional areas. This alternative would have a greater impact to federally protected waters than the proposed project, and would exceed 0.5 acres to comply with the NWP General Condition. Impacts to federally protected wetlands as defined by the USACE for this alternative is considered significant.

Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

This alternative is located within a larger area considered by the County of San Diego DPLU wildlife movement modeling as an important wildlife linkage for the ECMSCP. Impacts on wildlife movement are anticipated to be temporary. Few studies have been conducted on wildlife movement, and this analysis is based upon the available information. Wildlife species expected to move through this area include mule deer, mountain lion, bobcat, coyote, small mammals, reptiles, and birds. Although these species may be displaced by construction, long-term adverse effects are not anticipated due to animal acclimation to the buildings and structures. The relatively wide placement of the turbines and anticipated level of human operation is not expected to preclude any forms of movement for migrating species.

Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would be consistent with the proposed project and conflict with local policies or ordinances protecting biological resources, as discussed in Section 3.4-3. Impacts to biological resources are considered significant.

Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would be consistent with the proposed project and would conflict with the provisions of the Draft MSCP East County Subarea Plan. Impacts to sensitive species and vegetation communities covered under the Draft MSCP East County Subarea Plan are considered significant.

This alternative would have greater impacts than the proposed project.

Operation and Maintenance Facility Location #2 Alternative

The O&M Facility Location #2 Alternative would be located on private property, (T17S R7E Sec 16), south of the alternate collector substation and located west of McCain Valley Road, as illustrated in **Figure 2.0-13**. This alternative would consist of separating the 5-acre O&M building site from the collector substation; however, both would remain on Rough Acres Ranch property. Alternate Transmission Line #2 would be utilized under this alternative as well as the Alternate Overhead Collector System consisting of two 34.5 kV lines connecting the turbines to the alternate collector substation. All other elements of the project including the turbine locations, parking and laydown areas, and batch plant would remain as described in the proposed project.

This alternative is estimated to have the same vegetation community disturbance impacts as the Alternate Transmission Line #2 and Collector Substation Alternative. However, by relocating the O&M building site to the southern portion of Rough Acres Ranch, this alternative would result in a very slight difference (0.06 acres) in permanent impacts resulting from the construction of new access roads than those described in **Table 2.0-12**. In comparison to the proposed project, this alternative would increase the vegetation community disturbances by approximately 1.9 acres; from 772.6 acres to 774.55 acres. The 138 kV transmission line would decrease in distance as a result of this alternative from 9.7 miles to 3.8 miles and would decrease the amount of transmission line poles from 116 poles to 44 poles. The 34.5 kV overhead collector lines would increase in distance from 9.4 miles to 17 miles, and would increase the amount of collector line poles from 250 to 452 poles. The underground collector lines would decrease in distance from 29.3 miles to 28.9 miles.

Implementation of the proposed Operation and Maintenance Facility Location #2 Alternative would result in temporary and permanent impacts to vegetation communities and jurisdictional areas. Impacts to sensitive plants and wildlife species anticipated during the construction and operation of this alternative would be greater than impacts associated with implementation of the proposed project. **Table 3.4-22** summarizes the impacts to vegetation communities within this alternative. **Table 3.4-23** summarizes the impacts to jurisdictional areas within this alternative.

The following thresholds are used to determine impacts resulting from implementation of this alternative:

Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Considering the increase in acreage for temporary and permanent impacts for this alternative, it is expected that there will be a greater direct and indirect impacts to habitat. Implementation of this alternative would have greater impacts than the proposed project and would adversely affect sensitive species through direct loss of habitat, direct mortality to animals, and disruption of behavior. Indirect impacts to sensitive species would occur from noise, lighting, fugitive dust, erosion and runoff, increased risk of fire and the introduction of invasive vegetation. Impacts to sensitive species are considered significant.

**Table 3.4-22. Summary of Impacts by Habitat Type and Vegetation Community
Alternate Transmission Line #2 and O&M Facility Location #2**

Vegetation Community	Habitat Tier ¹	Existing Acres	Impact Type		Total Impacts (acres)
			Temporary	Permanent	
Big Sagebrush Scrub	II	149.27	7.32	2.57	9.90
Chamise Chaparral	III	178.32	13.50	22.59	36.09
Dense Coast Live Oak Woodland	I	12.74	0.53	0.00	0.53
Developed	N/A	43.74	0.54	3.89	4.44
Disturbed Habitat	IV	126.50	8.09	44.77	52.87
Field Pasture/Agriculture	IV	49.72	1.65	1.14	2.79
Montane Buckwheat Scrub	II	170.92	8.15	12.89	21.04
Mule Fat Scrub	I	0.28	0.00	0.00	0.00
Non Native Grass	III	59.66	2.82	2.38	5.21
Non Vegetated Channel	N/A	3.92	0.13	0.05	0.18
Northern Mixed Chaparral	III	477.01	20.97	93.35	114.32
Open Coast Live Oak Woodland	I	50.31	1.06	1.12	2.17
Redshank Chaparral	III	112.80	3.54	5.30	8.84
Scrub Oak Chaparral	III	546.98	28.45	65.62	94.07
Semi Desert Chaparral	III	1,688.26	84.53	150.23	234.75
Southern North Slope Chaparral	III	52.69	3.72	5.87	9.59
Southern Riparian Woodland	I	1.22	0.00	0.00	0.00
Southern Willow Scrub	I	1.78	0.07	0.00	0.07
Upper Sonoran Manzanita Chaparral	III	220.61	10.27	43.01	53.28
Upper Sonoran Subshrub Scrub	III	607.89	37.84	62.35	100.20
Not Surveyed	N/A	397.52	0.00	24.23	24.23
Grand Total		4,952.12	233.18	541.37	774.55

Source: HDR Engineering, Inc., Draft BTR, September 2010

N/A = Not applicable

* Habitat Tiers are based on the Draft East County MSCP and have not yet been adopted.

Table 3.4-23. Impacts to Jurisdictional Areas within the O&M Facility Location #2 Alternative

Agency	Existing Jurisdiction (acres)	Project Total Impacts (acres)	Proposed Project with Proposed T-Line (acres)		Total Impacts (acres)
			Temporary	Permanent	
USACE Wetlands	0	0			
USACE Waters of the U.S. and RWQCB Waters of the State	6.58	0.41	0.30	0.19	0.49
CDFG Jurisdictional Areas	19.10	0.89	0.65	0.33	0.98
County RPO Wetlands	1.86	0.06	0.03	0.03	0.06

Source: HDR Engineering, Inc., Draft Jurisdictional Wetland Delineation, August 2010

3.4 Biological Resources

Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFG or USFWS

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would adversely affect sensitive vegetation communities through direct loss of habitat. Two sensitive plants have been identified, with additional plant surveys to be conducted in the spring. Spring surveys are anticipated to produce additional sensitive species. Indirect impacts to sensitive vegetation communities would occur from fugitive dust, erosion and runoff, increased risk of fire, potential exposure to contaminants and the introduction of invasive vegetation. Impacts to sensitive vegetation communities are considered significant.

Substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption or other means

Construction, Operation and Maintenance, and Decommissioning

Impacts to federal jurisdictional waters from implementation of the proposed O&M Facility Location #2 Alternative would be similar to impacts associated with the proposed project (**Table 3.4-12**). Impacts to federal, and state jurisdictional areas would be the greater with this alternative as with the proposed project and the same as the local jurisdictional areas. Implementation of this alternative would adversely affect protected wetlands (“waters of the U.S.”) through direct removal, filling and hydrological interruption of jurisdictional areas. Impacts to jurisdictional areas would occur from erosion and runoff. Impacts to federally protected waters are considered significant.

Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

This alternative is located within a larger area considered by the County of San Diego DPLU wildlife movement modeling as an important wildlife linkage for the ECMSCP. Impacts on wildlife movement are anticipated to be temporary. Few studies have been conducted on wildlife movement, and this analysis is based upon the available information. Wildlife species expected to move through this area include mule deer, mountain lion, bobcat, coyote, small mammals, reptiles, and birds. Although these species may be displaced by construction, long-term adverse effects are not anticipated due to animal acclimation to the buildings and structures. The relatively wide placement of the turbines and anticipated level of human operation is not expected to preclude any forms of movement for migrating species.

Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would be consistent with the proposed project and conflict with local policies or ordinances protecting biological resources, as discussed in Section 3.4-3. Impacts to biological resources are considered significant.

Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or State habitat conservation plan

Construction, Operation and Maintenance, and Decommissioning

Implementation of this alternative would be consistent with the proposed project and would conflict with the provisions of the Draft MSCP East County Subarea Plan. Impacts to sensitive species and vegetation communities covered under the Draft MSCP East County Subarea Plan are considered significant.

This alternative would have greater impacts than the proposed project.

Draft